```
Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Post-processing: Minimum Match 0%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                             Score
    seq length: 0
seq length: 2000000000
                                                                                                                                                                                                                                                                                           Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10:
11:
12:
13:
14:
15:
16:
16:
17:
18:
19:
    1370721 seqs, 324215800 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  October 27, 2004, 08:33:39; Search time 132 Seconds (without alignments)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Published_Applications_AA:*

1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*

2: /cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep:*

3: /cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*

4: /cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*

5: /cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MESKSSWVIRLGFLSMDSTI.....EGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          / cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep:*
/ cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep:*
/ cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep:*
/ cgn2_6/ptodata/1/pubpaa/US08_NEW_PUB.pep:*
/ cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*
/ cgn2_6/ptodata/1/pubpaa/US09A_PUBCOMB.pep:*
/ cgn2_6/ptodata/1/pubpaa/US09B_PUBCOMB.pep:*
/ cgn2_6/ptodata/1/pubpaa/US09B_NEW_PUB.pep:*
/ cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep:*
/ cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep:*
/ cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GenCore version 5.1.6 (c) 1993 - 2004 Compus
US-09-995-225-20

US-10-183-116-31

US-10-225-567A-674

US-10-072-012-534

US-10-072-012-534

US-10-072-012-539

US-10-292-798-1274

US-10-072-012-530

US-10-072-012-535

US-10-391-074-2

US-10-391-074-2

US-10-219-834-79
                                                                                                                                                                                                                              US-09-867-570-2
US-09-995-225-20
                                                                                                                                                                                                                                                                                             Ħ
                                                                                                                                                                                                                                                                                                                                                          SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              827.733 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Compugen Ltd
                                                                                                                                                                                                                                                                                             Description
                                    Sequence 2, Appli
Sequence 20, Appl
Sequence 20, Appl
Sequence 31, Appl
Sequence 674, App
Sequence 529, App
Sequence 534, App
Sequence 2, Appli
Sequence 1274, App
Sequence 330, App
Sequence 531, App
                                                                                                                                                                                                                                 Sequence 20
  Appli
Appli
```

45	44	43	42	41	40	. 39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14
989.5	989.	1031.5	1263	4.1	1361	1.1	1367	1367	1367	1367	1367	1367	1367	1367	1383	1383	1383	1383	1383	1383	1383	1383	1383	1383	1383	1383	1383	1383	41	1415.5	1557
	Ō	58.5			77.2	•	77.5	•	•	•	•	77.5	77.5	77.5	•	•					78.4		78.4	78.4		78.4	78.4	78.4	80.3	0	88.3
330	330	331	328	323	322	319	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	1589	1589	302
y ·	φ	16	14	15	14	15	15	15	15	14	14	14	10	9	16	16	15	15	15	15	15	14	14	14	14	14	14	14	15	15	14
-09-750-373	09-826-508	-10-467-616-	-10-219-834-	-10-072-012	-292-798-	-10-072-012-	US-10-072-012-536	US-10-072-012-531	-248	US-10-237-467-4	US-10-225-567A-689	US-10-183-116-33	US-09-995-225-18	95-2	-10-314-	-10-321-8	-10-343-	-10-072-012	-10-072-0	-10-072-012	6-248	-798	237-	-10-321-807	-10-240-998-	US-10-017-161-1056	US-10-079-384-4	US-10-183-116-16	US-10-072-012-532	-072-012-	US-10-237-467-10
24,	12,	Ņ	20	178,	10	174,	e 536,	531,	84	4, 1	689	e 33,	e 18,	18,	Sequence 20, Appl	e 20,	44,	533,		172,	81,	89	12,	2	Sequence 4, Appli	10	e 4,	e 16	e 53	e 52	Sequence 10, Appl

## ALIGNMENTS

```
문
                                                                                                               Ś
                                                                                                                                                                문
                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 4
SOFTWARE: FeatSEQ for Windows Version 4.0
SEQ ID NO 2
LENGTH: 337
TYPE: PRT
ORGANISM: Human
US-09-867-570-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-867-570-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 2, Application US/09867570

Publication No. US20040076951A1

GENERAL INFORMATION:
APPLICANT: WEI, Ming-Hui et al.
TITLE OF INVENTION: ISOLATED HUMAN G-PROTEIN COUPLED
TITLE OF INVENTION: RECEPTORS, NUCLEIC ACID MOLECULES ENCODING HUMAN GPCR
TITLE OF INVENTION: PROTEINS, AND USES THEREOF
FILE REFERENCE: CL000900-CIP
CURRENT APPLICATION NUMBER: US/09/867,570
CURRENT FILING DATE: 2001-05-31
                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 337; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: 09/695,045 PRIOR FILING DATE: 2000-10-25
121 YFIGLSMLSAISTERCLSILWFIWYHCRRPRYLSSVMCYLLWALSLLRSILEWMFCDFLF 180
                                                                                                 61 AVVLWLLGCRWRRNAVSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFP
                                                                      61 AVVLWLLGCRMRRNAVSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFP
                                                                                                                                                                                             1 MESKSSWVIRLGFLSMDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGN
                                                                                                                                                                1 MESKSSWVIRLGFLSMDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGN
                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                       100.0%; Score 1763; DB 11; 100.0%; Pred. No. 7.4e-152; tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                     Length 337;
                                                                                                                                                                                                                                                            0,
                                                                                                                                                                                                                                                            Gaps
                                                                                                                       120
                                                                           120
                                                                                                                                                                     60
```

```
ş
                                            뭥
                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                             ; OTHER INFORMATION: No. US20020193584A1el Sequence US-09-995-225-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 2
US-09-995-225-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/09/995,225
CURRENT FILING DATE: 2001-11-26
PRIOR APPLICATION NUMBER: 09/170,496
PRIOR FILING DATE: 1998-10-13
PRIOR APPLICATION NUMBER: PCT/US99/23938
PRIOR APPLICATION NUMBER: 60/253,404
PRIOR APPLICATION NUMBER: 60/253,404
PRIOR APPLICATION NUMBER: 60/253,404
PRIOR FILING DATE: 2000-11-27
PRIOR PILING DATE: 2000-12-12
PRIOR PILING DATE: 2001-02-20
PRIOR APPLICATION NUMBER: 60/270,286
PRIOR APPLICATION NUMBER: 60/270,286
PRIOR PILING DATE: 2001-02-20
PRIOR APPLICATION NUMBER: 60/282,365
PRIOR FILING DATE: 2001-04-06
PRIOR FILING DATE: 2001-04-06
PRIOR FILING DATE: 2001-04-06
                                                                                                                                     Query Match
Best Local Similarity
Matches 322; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Chen, Ru
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 20, Ap
Publication No.
                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: 60/282,032
PRIOR FILING DATE: 2001-04-06
PRIOR APPLICATION NUMBER: 60/282,358
PRIOR FILING DATE: 2001-04-06
PRIOR APPLICATION NUMBER: 60/282,356
                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: PatentIn
                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQ ID NOS: 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR FILING DATE: 2001-05-14 PRIOR APPLICATION NUMBER: 60/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: Endogenous And No. US20020193584A1-Endogenous Versions of Human TITLE OF INVENTION: Receptors FILE REFERENCE: AREN-0308
                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR FILING DATE: 2001-02-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: 60/270,266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                          FEATURE:
                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                           LENGTH: 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/282,032 FILING DATE: 2001-04-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 60/290,917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 2001-04-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301 NLKLVLQRALQDTPEVDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241 LLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181 SGADSVWCETSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKWPLTRLYVTILLTVLVF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 YFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLF 180
                                                                                 16 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALIGNAVVLWLLGCRWRRNA
  76
                                                 μ
                                              MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Lowitz, Ac
Tride, Cameron
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chen, Ruoping
Chu, Zhi Liang
Dang, Huong T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NLKLVLQRALQDTPEVDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SGADSVWCETSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVF
  VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Application US/09995225
                                                                                                                                  95.7%; Score 1688; DB 9; I larity 100.0%; Pred. No. 4.6e-145; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US20020193584A1
                                                                                                                                                                                                                                                                                                                                                                                                                               2001-07-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Kevin P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      60/309,208
                                                                                                                                                                            Length 322;
                                                                                                                                       Indels
                                                                                                                                     0
                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                              60
                                                                                        75
                                                                                                                                     0
```

```
PRIOR APPLICATION NUMBER: 60/309,208
PRIOR FILING DATE: 2001-07-31
NUMBER OF SEQ ID NOS: 67
SOFTWARE: PatentIn version 3.1
SEQ ID NO 20
LENGTH: 322
TYPE: PRT
TYPE: PRT
CRAMISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                            ; OTHER INFORMATION: No. US-09-995-225-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-995-225-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/995,225
CURRENT FILING DATE: 2001-11-26
PRIOR APPLICATION NUMBER: 09/170,496
PRIOR FILING DATE: 1998-10-13
PRIOR APPLICATION NUMBER: PCT/US99/23938
PRIOR APPLICATION NUMBER: PCT/US99/23938
PRIOR FILING DATE: 1998-10-13
PRIOR PRIOR APPLICATION NUMBER: 60/253,404
PRIOR FILING DATE: 2000-11-27
PRIOR APPLICATION NUMBER: 60/255,366
PRIOR APPLICATION NUMBER: 60/255,366
PRIOR APPLICATION NUMBER: 60/255,366
PRIOR FILING DATE: 2000-11-27
Query Match
Best Local Similarity
Matches 322; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 20, Application US/09995225 Publication No. US20030139588A9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Chen, Ruoping
APPLICANT: Chu, Zhi Liang
APPLICANT: Dang, Huong T.
APPLICANT: Lowitz, Kevin P.
APPLICANT: Pride, Cameron
APPLICANT: Pride, Huong Application
APPLICANT: Dang, Huong Application
APPLICANT: Dang, Huong Application
APPLICANT: Dang, Huong T.
APPLICANT: Lowitz D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR FILING DATE: 2001-04-06
PRIOR APPLICATION NUMBER: 60/282,358
PRIOR FILING DATE: 2001-04-06
PRIOR APPLICATION NUMBER: 60/282,356
PRIOR FILING DATE: 2001-04-06
PRIOR APPLICATION NUMBER: 60/290,917
PRIOR APPLICATION NUMBER: 60/290,917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: 60/270, 286
PRIOR FILING DATE: 2001-02-20
PRIOR APPLICATION NUMBER: 60/282, 365
PRIOR FILING DATE: 2001-04-06
PRIOR APPLICATION NUMBER: 60/270, 266
PRIOR FILING DATE: 2001-02-20
PRIOR FILING DATE: 2001-02-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR FILING DATE: 2001-05-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: 60/282,032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILE REFERENCE: AREN-0308
                                                                                                                                                                                                                                                                  FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        196 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    136 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IAMLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQMALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VSIYILMLVAADFLFLSGHIICSFLRLINIRHPISKILSFVMTFFYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VDEGGGWLPQETLELSGSRLEQ 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
    Conservative
95.7%; Score 1688; DB 10;
100.0%; Pred. No. 4.6e-145;
ive 0; Mismatches 0;
                                                                                                                                                                                                                         US20030139588A9el Sequence
                                                                                      Length 322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human
```

G

Indels

0;

Gaps

0,

```
Sequence 31, Application US/10183116
Publication No. US/20030092035A1
GENERAL INFORMATION:
APPLICANT: Anderson, David J.
APPLICANT: Dong, Xinzhong
APPLICANT: Zylka, Mark
APPLICANT: Simon, Melvin
APPLICANT: Simon, Melvin
APPLICANT: Han, Sang-kyou
TITLE OF INVENTION: PAIN SIGNALING MOLECULES
FILE REFERENCE: CALTE.4C1CP1
                                                                                                                                                                                                                                       ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-183-116-31
                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/10/183,116
CURRENT FILING DATE: 2002-06-26
PRIOR APPLICATION NUMBER: US 60/222,344
PRIOR FILING DATE: 2000-08-01
PRIOR APPLICATION NUMBER: US 60/202,027
PRIOR APPLICATION NUMBER: US 60/202,027
PRIOR FILING DATE: 2000-05-04
PRIOR FILING DATE: 2000-11-03
PRIOR FILING DATE: 2000-11-03
PRIOR FILING DATE: 2001-04-19
PRIOR PILING DATE: 2001-04-19
PRIOR PILING DATE: 2001-05-04
NUMBER: US 09/849,869
PRIOR PILING DATE: 2001-05-04
NUMBER: OF SEQ ID NOS: 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    음 성 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                           र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-183-116-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                    8
                                                                     밁
                                                                                                                      밁
                                                                                                                                                                                                                                                                              SOFTWARE: FastSEQ
SEQ ID NO 31
LENGTH: 322
                                                                                                                                                                                Query Match
Best Local Similarity
Matches 322; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   136
                 121
                            136 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                          16 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             76 VSIYILNLVAADFLFLSGHIICSFLRLINIRHPISKILSFVMTFFYFIGLSMLSAISTER
                                                                      61
                                                                                     76 VSIYILMLVAADFLFLSGHIICSFLRLINIRHPISKILSFVMTFFYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VSIYILNIVAADFIFISGHIICSPLRLINIRHPISKILSPVMTFPYFIGISMISAISTER
                                                                                                                          MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RIHLDWKVLFCHVHLVSIFLSALNSSANFIIYFFVGSFRQRQNRQNLKLVLQRALQDTPB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IAWIVFICVVLCGSSIVLIVRILCGSRKMPLTRLYVTIILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MDSTIPVLGTELTPINGREETPCYKQTLSPTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRWRRNA
                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                           for Windows Version
                                                                                                                                                                             95.7%; but
100.0%; Pr
                                                                                                                                                                                Score 1688; DB 14;
; Pred. No. 4.6e-145;
0; Mismatches 0;
                                                                                                                                                                                   Indels
                                                                                                                                                                                                           Length
                                                                                                                                                                                 0
                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        315
                                                                                                135
                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60
                 180
                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .. .. .. .. .. ..
                                                                                  RESULT 6
US-10-072-012-529
                                                                                                                                                                 8
                                                                                                                                                                                              밁
                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                       뭉
                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-225-567A-674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Simi
Matches 322;
Sequence 529, Application US/10072012
Publication No. US20040033493A1
GENERAL INFORMATION:
APPLICANT: Tchernev, Velizar
APPLICANT: Spytek, Kimberly
APPLICANT: Zerhusen, Bryan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 196
                                                                                                                                            301
                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                 196
                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                           136 CLSILWDIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          256
                                                                                                                                                                                                                          256
                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                               76 VSIYILNLVAADPLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 135
                                                                                                                                                                                                                                                                                                                                                                                                                                         16 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRWRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                      VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VDEGGGWLPQETLELSGSRLEQ
                                                                                                                                                                                                                                                                                                           CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILBWMPCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                USIYILNLVAADFLFLSGHIICSFLRLINIRHFISKILSFVMTFFYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQMALFS
                                                                                                                                            VDEGGGWLPQETLELSGSRLEQ
                                                                                                                                                                                                RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTFE
                                                                                                                                                                                                                                                                    TAMINFICOVICGSSIVILIVRIICGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQMÄLFS
                                                                                                                                                                                                                                                       IAWLVFLCVVLCGSSLVLLVRILCGSRKWPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VDEGGGWLPQETLELSGSRLEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
100.0%; FI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 1688; DB 14; pred. No. 4.6e-145;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                            322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         G PROTEIN-COUPLED RECEPTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            315
                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                         195
                                                                                                                                                                                                                                                                                                                                                                                                                          60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                   300
                                                                                                                                                                                                                             315
                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                  255
                                                                                                                                                                                                                                                                                                              180
```

```
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Remaining Prior Remaining Prior Remaining Prior Remaining Prior Remaining Prior Remaining Remain
                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; ORGANISM: Homo sapiens
US-10-072-012-529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: 60/265,102
PRIOR FILLING DATE: 2001-01-30
PRIOR PELLING DATE: 2001-01-31
PRIOR PILLING DATE: 2001-01-31
PRIOR PILLING DATE: 2001-01-31
PRIOR PILLING DATE: 2001-01-31
PRIOR APPLICATION NUMBER: 60/265,517
PRIOR APPLICATION NUMBER: 60/265,412
PRIOR APPLICATION NUMBER: 60/265,412
PRIOR PILLING DATE: 2001-01-31
PRIOR PILLING DATE: 2001-01-31
PRIOR PILLING DATE: 2001-01-31
PRIOR PILLING DATE: 2001-02-02
PRIOR PILLING DATE: 2001-02-02
PRIOR APPLICATION NUMBER: 60/266,767
PRIOR PILLING DATE: 2001-02-05
PRIOR PILLING DATE: 2001-02-05
PRIOR PILLING DATE: 2001-02-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 95.7%; Score 1688; DB 15; Best Local Similarity 100.0%; Pred. No. 4.6e-145; Matches 322; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: 60/267,057
PRIOR FILING DATE: 2001-02-07
PRIOR APPLICATION NUMBER: 60/266,975
PRIOR FILING DATE: 2001-02-07
PRIOR APPLICATION NUMBER: 60/267,459
PRIOR ENDICATION NUMBER: 60/267,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/10/072,012
CURRENT FILING DATE: 2002-01-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Lepley, Denise M.
APPLICANT: Rieger, Daniel K.
APPLICANT: Burgess, Catherine E.
APPLICANT: Droteins and Nucleic Acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR FILING DATE: 2001-02-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILE REFERENCE: 21402-258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                              121
                                                                                                                                                                                                             136 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Prior Application data removed - See File Wrapper SEQ ID NOS: 1391
                                      IAMLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQMALFS
                                                                                                                                                         CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                VSIYILNIVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                               VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Furtak, Katarzyna
Grosse, William M.
Alsobrook II, John P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gerlach, Valerie
Taupier Jr, Raymond J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Miller, Charles E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Anderson, David W.
Rastelli, Luca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Patturajan, Meera
Shimkets, Richard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Colman, Steven D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Padigaru,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Carol E. A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Adam
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Muralidhara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Encoding Same
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                               195
                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                  135
                                                                            255
                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60
240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
```

```
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                        US-10-072-012-534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 7
US-10-072-012-534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/10/072,012
CURRENT FILING DATE: 2002-01-31
PRIOR APPLICATION NUMBER: 60/265,102
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: 60/265,514
PRIOR APPLICATION NUMBER: 60/265,517
PRIOR FILING DATE: 2001-01-31
PRIOR PILING DATE: 2001-01-31
PRIOR PILING DATE: 2001-01-31
PRIOR APPLICATION NUMBER: 60/265,412
PRIOR APPLICATION NUMBER: 60/265,412
                                                                                                                                              SOFTWARE: Pare, SEQ ID NO 534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION. Velizar APPLICANT: Tchernev, Velizar APPLICANT: Syttek, Kimberly APPLICANT Frvan
Query Match
Best Local Similarity
Matches 322; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 534, Application US/10072012
Publication No. US20040033493A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                          LENGTH: 322
TYPE: PRT
ORGANISM: Homo #
                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: 60/265,395
PRIOR FILING DATE: 2001-01-31
PRIOR APPLICATION NUMBER: 60/266,406
PRIOR FILING DATE: 2001-02-02
PRIOR APPLICATION NUMBER: 60/266,767
PRIOR FILING DATE: 2001-02-05
PRIOR FILING DATE: 2001-02-05
                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: 60/267,459
PRIOR FILING DATE: 2001-02-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Lepley, Denise M.
APPLICANT: Rieger, Daniel K.
APPLICANT: Burgese, Catherine B.
TITLE OF INVENTION: Proteins and Nucleic Acids Encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                    Remaining Prior Application data removed - NUMBER OF SEQ ID NOS: 1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILE REFERENCE: 21402-258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: 60/267,057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR FILING DATE: 2001-01-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                          FILING DATE: 2001-02-07
APPLICATION NUMBER: 60/266,975
FILING DATE: 2001-02-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RIHLDWKYLFCHYHLYSIFLSALNSSANPIIYFFYGSFRQRQNRQNLKLYLQRALQDTPE 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VDEGGGWLPQETLELSGSRLEQ 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Furtak, Katarzyna
Grosse, William M.
Alsobrook II, John P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Wolenc, Adam R.
Pena, Carol E. A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gerlach, Valerie
Taupier Jr, Raymo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Colman, Steven D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gusev, Vladimir Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Miller, Charles E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Padigaru, Muralidhara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Shimkets, Richard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Patturajan,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Anderson, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Zerhusen, Bryan
95.7%; Score 1688; DB 15; larity 100.0%; Pred. No. 4.6e-145; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Luca
                                                                                                                                                                                                                                           See File Wrapper or PALM
                                          Length 322;
```

0

皮 S 닭 र् 밁 S 밁 8

```
TITLE OF INVENTION: METHODS AND COMPOUNDS FOR PREVENTION AND TREATMENT OF ELEVATED TITLE OF INVENTION: INTERACCULAR PRESSURE AND RELATED CONDITIONS
FILE REFERENCE: 4518/1M674US1
CURRENT APPLICATION NUMBER: US/10/401,397A
CURRENT FILING DATE: 2003-03-27
PRIOR APPLICATION NUMBER: US 60/367,513
PRIOR PILLING DATE: 2002-03-27
NUMBER OF SEQ ID NOS: 8
SOFTWARE: Patentin version 3.1
SEQ ID NO 2
LENGTH: 322
TYPE: PRT
ORGANISM: Homo sapiens
US-10-401-397A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 8
US-10-401-397A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 2, Application US/10401397A
Publication No. US20030212001A1
GENERAL INFORMATION:
APPLICANT: Peri, Krishna G.
APPLICANT: Moffett, Serge
APPLICANT: Abran, Daniel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 321; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         316 VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              136 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                          136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tch 95.5%; al Similarity 99.7%; 321; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13
                                                                                                                                                                                                                                                                                                                                                                                                                          76 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 135
                                                                                                                                                                                                                                                                                                                                                           76 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                        RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                           CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                          CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                              VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VDEGGGWLPQETLELSGSRLEQ 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RIHLDWKYLFCHYHLYSIFLSALNSSANPIIYFFYGSFRQRQNRQNLKLYLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 1683; DB 14;
Pred. No. 1.3e-144;
1; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                         315
                                                                                                                                                                         255
                                                                                                                                                                                                                                                                             195
                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                135
                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60
                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
             US-10-072-01.

US-10-072-01.

Sequence 530, A.

GENERAL INFORMATION:

APPLICANT: Tichernev, Velizar

APPLICANT: Spytek, Kimberly

APPLICANT: Serhusen, Bryan

APPLICANT: Patturajan, Meera

"Ti. Li

"Ti. Li

Muralif

Muralif
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1274, Application US/10292798

| Publication No. US20030235833A1 |
| GENERAL INFORMATION: |
| APPLICANT: SUMA, MAKIKO |
| APPLICANT: SUMA, MAKIKO |
| APPLICANT: ASAI, KIYOSHI |
| APPLICANT: ABURATANI, HIROYUKI |
| TITLE OF INVENTION: GUANOSINE TRIPHOSPHATE-BINDING PROTEIN COUPLED RECEPTORS |
| FILE REFERENCE: 084335/166 |
| CURRENT APPLICATION NUMBER: US/10/292,798 |
| CURRENT FILLING DATE: 2002-11-13 |
| PRIOR APPLICATION NUMBER: 10/017,161 |
| PRIOR APPLICATION NUMBER: 10/017,161 |
| PRIOR APPLICATION NUMBER: JP 2001-12-18 |
| PRIOR APPLICATION NUMBER: JP 2001-12-18 |
| PRIOR APPLICATION NUMBER: JP 2001-246789 |
| PRIOR FILING DATE: 2001-06-18 |
| SOFTWARE: PRI CONTENT OF SEQ ID NOS: 2070 |
| SOFTWARE: PRI CONTENT OF SERVICES |
| SEQ ID NO 1274 |
| LENGTH: 322 |
| TYPE: PRI CONTENT OF SERVICES |
| PRIOR PRI CONTENT OF SERVICES |
| TYPE: PRI CONTENT OF SERVICES |
| TY
                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; ORGANISM: Homo sapiens 
US-10-292-798-1274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 9
US-10-292-798-1274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  316 VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      196 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     256 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         136 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 195
                                                                                                                                                                                                                                                                                                                                                                                                        301 VDEGGGWLPQETLELSGSRLEQ 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    321;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            76 VSIYILNLVAADFLFLSGHIICSFLRLINIRHPISKILSFVMTFFYFFIGLSMLSAISTER 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IAWLVFLCVVLCGSSLVLLVRILCGSRXMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
  Li, Li
Gangolli, Esha
Padigaru, Muralidhara
Anderson, David W.
                                                                                                                                                                                                                                                     Application US/10072012 to. US20040033493A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        95.5%;
99.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 1683; DB 14;
Pred. No. 1.3e-144;
1; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60
```

300

240 255 180

밁

ঠ 밁

ð В S 밁 Ś

片

301 VDEGGGWLPQETLELSGSRLEQ 322

```
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-072-012-530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR FILING DATE: 2001-02-07
PRIOR APPLICATION NUMBER: 60/267,459
PRIOR FILING DATE: 2001-02-08
Remaining Prior Application data removed - See File Wrapper or PALM.
NUMBER OF SEQ ID NOS: 1391
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 530
LENGTH: 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: 60/265,514
PRIOR FILING DATE: 2001-01-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: 60/265,517
PRIOR FILING DATE: 2001-01-31
PRIOR APPLICATION NUMBER: 60/265,412
PRIOR FILING DATE: 2001-01-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILE REFERENCE: 21402-258
CURRENT APPLICATION NUMBER: US/10/072,012
CURRENT FILING DATE: 2002-01-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Burgess, Catherine E.
TITLE OF INVENTION: Proteins and Nucleic Acids Encoding Same
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: 60/265,102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 60/266,406
FILING DATE: 2001-02-02
APPLICATION NUMBER: 60/266,767
FILING DATE: 2001-02-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 60/267,057
FILING DATE: 2001-02-07
APPLICATION NUMBER: 60/266,975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 60/265,395 FILING DATE: 2001-01-31
                        316
                                                                241
                                                                                                                                            181
                                                                                                                                                                                                                           121
                                                                                                   256 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                 196 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                              136 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                              321;
                                                                                                                                                                                                                                                                                                       13
                                                                                                                                                                                                                                                                                                                                76 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                           16 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA 75
                                                                                                                                                                                                                                                                                                                                                                                    \vdash
VDEGGGWLPQETLELSGSRLEQ 337
                                                           RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                       VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                    MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                       CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Furtak, Katarzyna
Grosse, William M.
Alsobrook II, John P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Wolenc, Adam R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rastelli, Luca
Miller, Charles E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rieger, Daniel K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pena,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gusev, Vladimir Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Taupier Jr,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gerlach,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Carol E. A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             95.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Raymond J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 1683; DB 15;
Pred. No. 1.3e-144;
1; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              °,
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                   315
                                                                                                                                                                                                                                                                195
                                                                                                                                                                                                                                                                                                                                            135
                                                                                                                                                                                 255
                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                    60
                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
```

δ 밁 S 片 á 밁 δ 밁

```
APPLICANT: Lepley, Denise M.
APPLICANT: Rieger, Daniel K.
APPLICANT: Rieger, Daniel K.
APPLICANT: Rieger, Catherine B.
TITLE OF INVENTION: Proteins and Nucleic Acids Encoding Same
FILE REFERENCE: 21402-258
CURRENT APPLICATION NUMBER: US/10/072,012
CURRENT FILING DATE: 2002-01-31
PRIOR APPLICATION NUMBER: 60/265,102
PRIOR FILING DATE: 2001-01-30
PRIOR FILING DATE: 2001-01-31
PRIOR APPLICATION NUMBER: 60/265,517
PRIOR APPLICATION NUMBER: 60/265,517
PRIOR FILING DATE: 2001-01-31
PRIOR APPLICATION NUMBER: 60/265,412
PRIOR APPLICATION NUMBER: 60/265,412
PRIOR APPLICATION NUMBER: 60/265,412
PRIOR APPLICATION NUMBER: 60/265,395
PRIOR FILING DATE: 2001-01-31
PRIOR APPLICATION NUMBER: 60/265,395
PRIOR APPLICATION NUMBER: 60/265,395
PRIOR APPLICATION DATE: 2001-01-31
PRIOR APPLICATION NUMBER: 60/265,395
PRIOR APPLICATION NUMBER: 60/265,395
PRIOR APPLICATION NUMBER: 60/265,395
PRIOR APPLICATION NUMBER: 60/265,395
S
                                            밁
                                                                                   Ś
                                                                                                                                                                                                                          ; TYPE: PRT ; ORGANISM: Homo sapiens US-10-072-012-535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 11
US-10-072-012-535
                                                                                                                                                                                                                                                                                         SUFITH: 322
                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: Tchernev
APPLICANT: Spytek,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 535, Application US/10072012 Publication No. US20040033493A1
                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: 60/267,057
PRIOR FILING DATE: 2001-02-07
PRIOR APPLICATION NUMBER: 60/266,975
PRIOR FILING DATE: 2001-02-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: 60/266,406
PRIOR FILING DATE: 2001-02-02
PRIOR APPLICATION NUMBER: 60/266,767
PRIOR FILING DATE: 2001-02-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR FILING DATE: 2001-02-08
                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: 60/267,459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PPLICANT:
                                                                                                                                       321;
                                                                          16 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
76 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 135
                                              1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                  Prior Application data removed
                                                                                                                                                                                                                                                                                                                                          PatentIn Ver.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Tchernev, Velizar
Spytek, Kimberly
Zerhusen, Bryan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Colman, Steven D. Wolenc, Adam R. Pena, Carol B. A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Furtak, Katarzyna
Grosse, William M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gerlach, Valerie
Taupier Jr, Raymond J.
Gusev, Vladimir Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Alsobrook II, John P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gangolli, Esha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patturajan, Meera
Shimkets, Richard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Miller, Charles E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rastelli,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Anderson, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Padigaru,
                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Luca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Muralidhara
                                                                                                                                                     95.5%;
99.7%;
                                                                                                                                                  Score 1683; DB 15; Pred. No. 1.3e-144;
                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                    See File Wrapper or PALM
                                                                                                                                                                                 DB 15;
                                                                                                                                       Indels
                                                                                                                                                                              Length
                                                                                                                                    0,
                                                                                                                                    Gaps
                                                60
                                                                                             75
                                                                                                                                       ٥,
```

```
RESULT 13
US-10-219-834-79
; Sequence 79, Application US/10219834
; Publication No. US20030096751A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            र्
                                                                                                                                                                                     문
                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                       र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 12
US-10-391-074-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-391-074-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Nehls, Michael
APPLICANT: Wattler, Frank
APPLICANT: Wattler, Frank
TITLE OF INVENTION: NO. US20040038345A1el Human Seven-Transmembrane Receptors
FILE REFERENCE: 7705.0008-00-000
CURRENT APPLICATION NUMBER: US/10/391,074
CURRENT PILING DATE: 2003-03-17
NUMBER OF SEQ ID NOS: 4
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 2
LENGTH: 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 2, Application US/10391074 Publication No. US20040038345A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 94.3%;
Best Local Similarity 99.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               316 VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                              316 VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                136
                                                                                                                          301
                                                                                                                                                                                            241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                        196 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                        136 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    320;
                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                               76 VSIYILNLVAADFLFLSGHIICSFLRLINIRHPISKILSFVMTFFYFFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RIHLDWKYLFCHYHLYSIFLSALNSSANFIIYFFYGSFRQRQNRQNLKLYLQRALQDTFE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLSILWPIWYHCRRPRYLSSVMCVLLWALSILRSILBWMFCDFLFSGADSVWCETSDFIT 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                          VDEGGGQLPQETLELSGSRLEQ 322
                                                                                                                                                                                                                    RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                    IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                           VSIYILNLVAADFLFLSGHIIRSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VDEGGGWLPQETLELSGSRLEQ 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VSIYILNLVAADPLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1663; DB 15;
Pred. No. 8.5e-143;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                          195
                                                                                                                                                                                                                                                                                                                                                                                                                                            135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                              300
                                                                                                                                                                                                                               315
                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                     255
                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
```

APPLICANT: Liao, Jiayu
APPLICANT: Gray, Nathanael S.
APPLICANT: Gray, Nathanael S.
APPLICANT: Caldwell, Jeremy C.
APPLICANT: Schultz, Peter G.
APPLICANT: Schultz, Peter G.
TITLE OF INVENTION: Sensory Neuron Receptors
FILE REFERENCE: 021288-001300US
CURRENT APPLICATION NUMBER: US/10/237,467
CURRENT FILING DATE: 2003-01-14
PRIOR APPLICATION NUMBER: US 60/317,879
PRIOR PILING DATE: 2001-09-07
NUMBER OF SEQ ID NOS: 18
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 10

Sequence 10, Application US/10237467
Publication No. US20030186324A1
GENERAL INFORMATION:

```
RESULT 14
US-10-237-467-10
                                                                                                                                             밁
                                                                                                                                                                               S
                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; LENGTH: 314
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-219-834-79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: US 60/318,675
PRIOR FILLING DATE: 2001-09-12
PRIOR APPLICATION NUMBER: US 60/355,596
PRIOR FILLING DATE: 2002-02-06
PRIOR FILLING DATE: 2002-02-06
PRIOR APPLICATION NUMBER: US 60/333,417
PRIOR FILLING DATE: 2001-11-26
PRIOR APPLICATION NUMBER: US 60/338,367
PRIOR FILLING DATE: 2001-12-06
PRIOR FILLING DATE: 2001-12-06
NUMBER OF SEQ ID NOS: 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: Patentin
SEQ ID NO 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Bristol-Myers Squibb Company
TITLE OF INVENTION: G-PROTEIN COUPLED RECEPTOR POLYNUCLEOTIDES AND METHODS OF USE THEF
FILE REFERENCE: D0191 NP
CURRENT APPLICATION NUMBER: US/10/219,834
CURRENT FILING DATE: 2002-08-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: US 60/313,658
PRIOR FILING DATE: 2001-08-20
PRIOR APPLICATION NUMBER: US 60/340,703
PRIOR FILING DATE: 2001-10-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Match 93.0%;
Local Similarity 97.5%;
                                                                                                           316
                                                                                                                                               241
                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                136
                                                                                                                                                                                 256
                                                                                                                                                                                                                                                          196
                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                            16 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               314;
                                                                                                                                                                                                                                                                                                                                                                                                      76
                                                                                                                                                                                                                                                                                            CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                    VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                       VSIYILMLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                         MDSTIPVLGTELTPINGREETPCYKQTLSPTGLTCIVSLVALTGNAVVLWLLGCRWRRNA
                                                                                            VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                 RIHLDWKVLFCHVHLVSIFLSALNSSANFIIYFFVGSFRQRQNRQN----
                                                                           VDEGGGWLPQETLELSGSRLEQ 314
                                                                                                                                                                   RIHLDWKVLFCHVHLVSIFLSALNSSANFIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 315
                                                                                                                                                                                                                      IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                         IAWLVELCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPEGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2002-08-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 1639; DB 14;
Pred. No. 1.3e-140;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 314;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 80
                                                                                                                                                   LODTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                  195
                                                                                                                                                                                                                                                                                                                                                                                                        135
                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                           60
                                                                                                                                                   292
                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               75
                                                                                                                                                                                                                                                          255
```

```
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; OTHER INFORMATION: dorsal root ganglia G-protein coupled receptor ; OTHER INFORMATION: 7 (DRG7) (NT009307) US-10-237-467-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-072-012-528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ઠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 301; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 528, Ap
Publication No.
                                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                        APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
CURRENT APPLICATION NUMBER: US/10/072,012
CURRENT FILING DATE: 2002-01-31
PRIOR APPLICATION NUMBER: 60/265,102
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: 60/265,514
PRIOR FILING DATE: 2001-01-31
                                                                                                                                                           APPLICANT:
APPLICANT:
                                                                                           APPLICANT: Rieger, Daniel K.
APPLICANT: Burgess, Catherine E.
TITLE OF INVENTION: Proteins and Nucleic Acids
FILE REFERENCE: 21402-258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Homo FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          μ
                                                                                                                                                                                       Colman, Steven D.
Wolenc, Adam R.
Pena, Carol E. A
Furtak, Katarzyna
Grosse, William M.
                                                                                                                                                                                                                                                                                                                Gangolli, Esha
Padigaru, Muralidhara
Anderson, David W.
Rastelli, Luca
Miller, Charles E.
Garles Valari
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tchernev, Velizar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VDEGGGWLPQETLELSGSRLEQ 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RIHLDWKYLFCHVHLVSIFLSALNSSANFIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VSIYILNLVAADFLFLSGHIICSFLRLINIRHFISKILSFVMTFFYFIGLSMLSAISTER 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MDSTIPVLGTELTPINGREE-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                               Spytek, Kimberly
Zerhusen, Bryan
Patturajan, Meera
                                                                                                                                                                                                                                                                     Gerlach, Valerie
Taupier Jr, Raymond
Gusev, Vladimir Y.
                                                                                                                                         Alsobrook II, John P.
Lepley, Denise M.
Rieger, Daniel K.
                                                                                                                                                                                                                                                                                                                                                                                                               Shimkets, Richard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Application US/10072012
b. US20040033493A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     88.3%;
93.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; Score 1557; D; Pred. No. 3.4e
                                                                                                                                                                                                                                                                                       4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 14;
).4e-133;
les 0;
                                                                                                            Encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -ALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                             Same
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     302;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GPCR)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ۲
```

```
; TYPE: PRT ; ORGANISM: Homo sapiens US-10-072-012-528
                     8
                                                   片
                                                                    S
                                                                                                   밁
                                                                                                                          á
                                                                                                                                                       밁
                                                                                                                                                                            8
                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                           맑
                                                                                                                                                                                                                                                                                á
                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 279; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: Par
SEQ ID NO 528
                                                                                                                                                                                                                                                                                                                                                                                                                                            Remaining
NUMBER OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: 60/266,406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OR APPLICATION NUMBER: 60/265,517
OR FILLING DATE: 2001-01-31
OR APPLICATION NUMBER: 60/265,412
OR FILLING DATE: 2001-01-31
OR APPLICATION NUMBER: 60/265,395
OR FILLING DATE: 2001-01-31
                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 2001-02-07
APPLICATION NUMBER: 60/267,459
FILING DATE: 2001-02-08
ning Prior Application data removed
R OF SEQ ID NOS: 1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 60/267,057
FILING DATE: 2001-02-07
APPLICATION NUMBER: 60/266,975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 2001-02-02
APPLICATION NUMBER: 60/266,767
FILING DATE: 2001-02-05
                                                   873
                                                                                                     813
                                                                                                                                                     933
                         288
                                                                           228
                                                                                                                              168
                                                                                                                                                                                                          693
                                                                                                                                                                                                                                                            633 SSWFHIKEEHAGHPGVFSRKVTRIGFLSMDPTISTLDTELTPINGTEETLCYKQTLSLTV
                                                                                                                                                                                                                      48 LTCIVSLVALTGNAVVLWLLGCRMRRNAVSIYILNIVAADPLFLSGHIICSPLRLINIRH
                                                                                                                                                                                                                                                                                      ហ
                                                                                                                                                                                                                                                                                                                                                                                                         1589
                                                                                                                                                                                                                                                                                                                                                                                                                               PatentIn Ver.
                                                                                                   SSW---------VIRLGFLSMDSTIPVLGTELTPINGREETPCYKQTLSFTG
                                                 RLYVTILLTVLVELLCGLPFGIQEFLFLWIHVDREVLFCHVHLVSIFLSALNSSANPIIY
                                                               RLYVTIILITVLVFLLCGLPEGIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIY
PFVGSFRQRQNRQNLKLVLQRALQDASEVDEGGGQLPEBILELSGSRLEQ
                      FFVGSFRORQNRQNLKLVLORALQDTPEVDEGGGWLPQETLELSGSRLEQ
                                                                                                                                                                                                          LTCIVSLVGLTGNAVVLWLLGCRMRRNAFSIYILNLAAADFLFLSGRLIYSLLSFISIPH
                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                          80.3%;
                                                                                                                                                                                                                                                                                                               16;
                                                                                                                                                                                                                                                                                                                          Score 1415.5; D
Pred. No. 1.5e-1
                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                            •
                                                                                                                                                                                                                                                                                                                                                                                                                                                        See File Wrapper or PALM
                                                                                                                                                                                                                                                                                                                                      DB 15;
                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                              17;
                                                                                                                                                                                                                                                                                                                                         1589
  982
                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                     107
                                                                            287
                                                                                                      872
                                                                                                                                227
                                                                                                                                                         812
                                                                                                                                                                                  167
                                                                                                                                                                                                           752
                                                                                                                                                                                                                                                             692
                                                                                                                                                                                                                                                                                       47
```

Search completed: October 27, 2004, 08:45:33 Job time : 133 secs

۹,

```
Minimum DB :
Maximum DB :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Title:
Perfect score:
                                                                                                                                                                                                Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Run on:
                                                                                                                                                             Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                      Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                         Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence:
                                                                                                                                                                                                                                                                            seq length: 0
seq length: 2000000000
              A_Geneseq_23Sep04:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2003as:*
6: geneseqp2003as:*
7: geneseqp2003as:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-867-570-2
1763
1 MESKSSWVIRLGFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             October 27, 2004, 08:23:27; Search time 157 Seconds (without alignments) 770.011 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                             BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                               2002273 seqs, 358729299 residues
                                                                                                                                                                                                                                                                                                                                                                                                                     Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MESKSSWVIRLGFLSMDSTI.......EGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.
geneseqp2004s:*
                                                                                                                                                                                                                                                                                                                                            2002273
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match 1	Length	BB	ID	Description
1	1763	100.0	337	5	AAU97598	Aau97598 Human G-p
2	1688	95.7	322	ω	AAY90761	Human
ω	1688	95.7	322	տ	ABJ04077	Human
4	1688	95.7	322	տ	AAE21296	Aae21296 Human Mrg
ű	1688	95.7	322	σ	ADI16993	Human
o.	1688	95.7	322	Ŋ	ADI16998	-
7	1688	95.7	322	0	ABP81750	Human C
8	1688	95.7	322	8	ADH08535	Adh08535 MrgX3. 3/
9	1688	95.7	322	œ	ADO44602	_
10	1688	95.7	322	8	ADO29705	Ado29705 Human GPC
11	1688	95.7	560	7	ADF70481	Adf70481 Orphan re
12	1683	95.5	322	w	AAY90762	Human
13	1683	95.5	322	u	ADI16994	Human
14	1683	95.5	322	v	ADI16999	Adi16999 Human NOV
15	1683	95.5	322	7	ADC86821	Human
16	1683	95.5	322	æ	ADF29105	Adf29105 Human GPC
17	1683	95.5	322	8	ADO44604	Ado44604 Human HI7
18	1663	94.3	322	w	AAB14846	Aab14846 Human nov
19	1642	93.1	322	N	AAY30159	Aay30159 Human dor
20	1598	90.6	322	N	AAY30160	Aay30160 Human dor
21	1557	88.3	302	σ	ABP96695	Human
22	1415.5	80.3	1589	ű	ADI16996	Human
23	1415.5	80.3	1589	σ	ADI16992	Human
24	1405	79.7	322	N	AAY30161	Aay30161 Human dor
25	1399	79.4	304	7	ADC12766	Adc12766 Human GPC

1387 78.7 322 3 AAY87664 1387 78.7 322 4 AAC647294 1383 78.4 322 4 AAC64294 1383 78.4 322 4 AAC64294 1383 78.4 322 5 AAC64291 1383 78.4 322 5 ADI16636 1383 78.4 322 5 ADI16997 1383 78.4 322 5 ADI16997 1383 78.4 322 6 ABP96696 1383 78.4 322 7 ABC66445 1383 78.4 322 7 ABC66445 1383 78.4 322 7 ABC66465 1383 78.4 322 7 ABC66466 1383 78.4 322 7 ABC66466 1383 78.4 322 8 ADI16920 1383 78.4 322 8 ADIN6220	788.4.4.4.4.4.4.3222 7 7 8 8 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	45	44	43	42	41	40	39	38	37	36	35	<b>4</b>	ω G	32	31	30	29	28	27	
20222222222222222222222222222222222222	7 322 3 AAV87664 7 322 4 AAG64294 4 322 4 AAG12794 4 322 5 AAR12794 4 322 5 AAR17074 4 322 5 AAR116991 4 322 5 AAR116991 4 322 5 AAR116997 4 322 6 AAR996696 4 322 6 AAR996696 4 322 7 ABV080803 4 322 7 ABV080803 4 322 7 ABV18620 4 322 8 AAV82290 4 322 8 AAV82290	1383	1383	1383	1383	1383	1383	1383	1383	1383	1383	1383	1383	1383	1383	1383	1383	1383	1387	1387	
<b>ωρα44500000000000000000000000000000000000</b>	3 AAY87664 7 ADCL17728 4 AAG64294 4 AARE12794 4 AARE12794 5 AARE71074 5 AARE71074 5 ADD116991 5 ADD116936 6 ABP95696 6 ABP95266 6 ABP95266 7 ADC66445 7 ABW06803 7 ADL96466 8 ADN408290 8 ADN408290 8 ADN408290	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.4	78.7	78.7	
	AAY97664 ADC17728 AAG64294 AAG12794 AAG12794 AAG12794 AAG12794 AAG12794 ABP95617 AAE11074 ABP95617 ABP95617 ABP95696 AD116936 AD116936 AD16996 ABP59266 ABP592666 ABP5926666 ABP5926666 ABP5926666 ABP5926666 ABP5926666 ABP5926666 ABP5926666 ABP5926666 ABP5926666 ABP59266666 ABP5	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	322	
AAY87664 ABC17728 AAG64294 AAG12794 AAG12794 AAG127074 AAG121288 ADJ116636 ADJ116636 ADJ116997 AAG116997 AAG1696696 ADJ16997 AAG1696696 ADJ16997 AAG1696696 ADJ16997 AAG16997		ω	œ	ω	7	7	7	σ	σ	ហ	ഗ	თ	UI	ហ	ຫ	4.	Α,	4.	7	w	
	Aay87664 Adc17728 Aag64294 Aae12794 Aae17074 Aae17074 Aae17074 Aabp95617 Aae21188 Adi16636 Adi16636 Adi16697 Abp96696 Adb96696 Adb96696 Adb96696 Adb96696 Adb96696 Adb96696 Adb96696 Adb86820 Ada422900 Ado29703	AD029703	ADN42290	ADH08520	ADL96466	ABW00803	ADC86445	ABP59266	ABP96696	ADI16997	ADI16636	ADI16991	AAE21288	ABP95617	AAE17074	AAU04371	AAE12794	AAG64294	ADC17728	AAY87664	
Human		GP	nou		G	GPC	GP C	Dor	G D	z	Ş	ž	Mrg	Ð	Ģ	G-p	Q	GIP	TGR	G	

```
Human; G-protein coupled; receptor; GPCR; human protease; human therapeutic protein; query sequence; search; chromosome 3; sequence database; non-human transgenic animal; gene therapy.
                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                           Human G-protein coupled receptor (GPCR).
                                                                                                                                                                                                                                                                                                                                                                                               AAU97598;
                                                                                                                                                                                                                                                                                                                                                                                                               AAU97598 standard; protein; 337
Modified-site
                 Modified-site
                                    Modified-site
                                                                                         Modified-site
                                                                                                           Domain
                                                                                                                             Modified-site
                                                                                                                                               Domain
                                                                                                                                                                Modified-site
                                                                                                                                                                                  Modified-site
                                                                                                                                                                                                                     Modified-site
                                                                                                                                                                                                                                        Domain
                                                                                                                                                                                                                                                          Domain
                                                                                                                                                                                                                                                                            Domain
                                                                                                                                                                                                                                                                                                                                                                             12-AUG-2002
                                                                       Modified-site
                                                                                                                                                                                                                                                                                                                                                                             (first entry)
          .79.
/note=
.72. .294
/note= "Protein kinase C (PKC) phosphorylation site"
333. .336
                                                                                         244. .249
                                                                                                                             221. .223
                                                                                                                                                                                  169. .172
                                                                                                                                                                                                                      133. .135
                                                                                                                                                                                                                                               /label=_Helix_2
                                                                                                                                                                                                                                                                41. .61
/label= Helix_1
                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                            /label= Helix_7
                                                              /note=
                                                                                                /label= Helix_6
                                                                                                                                                                         /note= "Casein kinase II
                                                                                                                                                                                                           note= "Protein kinase C (PKC) phosphorylation site"
                                                                                                                                                                                                                               /label= Helix_3
                                                                               note= "Myristoylation site"
                                                                                                                                                      note=
                                                                                                                   note=
                                                                                                                                  label= Helix_5
                                                                                                                                                                                          abel= Helix_4
                                                                                                                                                                .184
                                                                        .253
                                                       . 281
                                                                                                           .249
                                                                                                                                              .213
                                                                                                                  "Protein kinase C (PKC)
                                                                                                                                                      "Casein kinase II (CK2)
                         "Asn glycosylation site"
                                                              "Myristoylation site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                         (CK2)
                                                                                                                                                     phosphorylation site"
                                                                                                                   phosphorylation site"
                                                                                                                                                                        phosphorylation site"
```

```
문
                                                                                             δ
                                                                                                                                   밁
                                                                                                                                                             ঠ
                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                         ₽
                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present invention relates to a new G-protein coupled receptor (GPCR) peptide. The invention is useful for identifying a modulator of GPCR of treating a disease or condition mediated by a human protease. The invention is also useful as models for the development of human therapeutics, for identifying therapeutic proteins, as targets for development of human therapeutic agents, and as query sequence to perform a search against sequence databases to, for e.g., identify other family members of related sequences. The vector of the invention is useful for producing a GPCR protein or peptide, for conducting cell-based assays involving the GPCR protein or its fragment, for identifying GPCR protein mutants whose functions are affected, and to produce non-human transgenic animals. The present amino acid sequence represents the human G-protein coupled receptor (GPCR) protein of the invention. This sequence is encoded by the human G-protein coupled receptor the human G-protein coupled receptor the human G-protein coupled the human G-protein coupled the human G-protein coupled receptor (GPCR) gene located on
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Novel isolated G-protein coupled receptor peptide useful for treating disorder characterized by absence of, in appropriate or unwanted expression of the receptor protein, and as immunogens to raise antibodies.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Wei M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25-OCT-2000;
31-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-OCT-2001; 2001WO-US031592.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200234914-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (PEKE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2002-463360/49.
DB; ABK52822, AI
301
                              301
                                                                  241
                                                                                                   241
                                                                                                                                     181
                                                                                                                                                                      181
                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                    337;
                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Zhao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PE CORP NY.
                         NLKLVLQRALQDTPEVDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                SGADSVWCETSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVF
                                                                                                                                                                                                                                                                                                 AVVLWLLGCRMRRNAVSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFF
                                                                                                                                                                                                                                                                                                                                                                   MESKSSWVIRLGFLSMDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGN
                                                                                                 LLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQ
                                                                                                                                                                                                                                         YFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLF
                                                                                                                                                                                                                                                                           AVVLWLLGCRMRRNAVSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFP
                                                                                                                                                                                                                                                                                                                                                MESKSSWVIRLGFLSMDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGN
                                                                                                                                     SGADSVWCETSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVF
                                                                                                                                                                                                          YFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLF
                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000US-00695045.
2001US-00867570.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2; 75pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Woodage T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABK52823.
                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 1763; DB 5; 100.0%; Pred. No. 1.1e-180;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Casein
                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ந
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         kinase II (CK2) phosphorylation site'
                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Francesco V,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Beasley
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                 300
                                                                                                                                                                      240
                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                60
                                                                  300
                                                                                                                                     240
                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                  60
                                                                                                                                                                                                                                                                                                                                                                                                                  0
```

RESULT 2

```
AAY90761
ID AAY9
XX
AC AAY9
XX
AC AAY9
XX
AC AAY9
XX
Huma
XX
Huma
XX
Huma
XX
Hom
XX
Ho
                                          S
                                                                                                                 맑
                                                                                                                                                                  S
                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches 322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present sequence represents a human-derived G protein-coupled protein designated hHI77213, which is isolated from the human hippocampus. The G protein-coupled receptor can be used for preventing, treating and diagnosing genetic diseases associated with G protein-coupled protein, and for regulating cellular functions. The protein can be used to prevent and treat disorders associated with G protein-coupled protein gene dysfunction. It can also be used to identify G protein-coupled protein ligands and generating antibodies and antisear against the protein. It is also useful in constructing recombinant receptor protein expression systems, developing receptor-binding assay systems and screening drug candidates, and can be used as a probe in the genetic diagnosis of G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   dysfunction of the protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human-derived G protein-coupled e.g. in determining ligands and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            genetic disease; cellular function regulation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY90761 standard; protein; 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      protein-coupled protein disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Page 90-91; 97pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Watanabe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200020455-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human G protein-coupled receptor hHI7T213 SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY90761;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (TAKE ) TAKEDA CHEM IND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000-303747/26
                                                                                                                 181
                                                                                                                                                                        196
                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                          136
                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                           76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          H
                                                                                                                                                                                                                                                              CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                         VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MDSTIPVLGTBLTPINGRBETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              322 AA;
RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                    RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                       VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MDSTIPVLGTELTPINGREETPCYKQTLSPTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein-coupled receptor; hippocampus; diagnosis;
                                                                                                                                                                           IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                  CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Terao Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98JP-00279535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-JP005366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  95.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matsui H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 1688; DB 3;
Pred. No. 1.2e-172;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  protein and encoding nucleic acid, useful treatment of diseases associated with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NO:1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        screening;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                              135
300
                                                          315
                                                                                                                    240
                                                                                                                                                                           255
                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                             195
                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                75
```

```
RESULT 3
ABJ04077
ID ABJC
XX
ABJC
XX
ABJC
XX
Huma
XX
Huma
XX
Huma
XX
Hom
KW Hum
                                                                       밁
                                                                                                                    S
                                                                                                                                                                       밁
                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 322; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                27-NOV-2000;
12-DEC-2000;
20-FEB-2001;
20-FEB-2001;
06-APR-2001;
06-APR-2001;
06-APR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                   The present invention provides the protein and coding sequences of several human G-protein coupled receptors (GPCRs). These can be used in the identification of candidate compounds as receptor agonists or inverse agonists having applicability as therapeutic agents. The present sequencis a GPCR protein of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel endogenous and non-endogenous versions of G protein-coupled receptor useful for identification of candidate compounds as receptors or antagonists for use as therapeutic agents.
                                                                                                                                                                                                                                                                                                                                                                     Sequence 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; G-protein
hRUP32; hRUP33; h
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 37; Page 75-76; 84pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-NOV-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30-MAY-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200242461-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABJ04077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (AREN-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2002-566565/60.
DB; ABT04875.
                           136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q
                                                                            61
                                                                                                                       76
                                                                                                                                                                                                                       16
                                                                                                                                                                         ۳
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ARENA PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Chu
CLSILMPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                            VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                        VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                       MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRWRRNA
                                                                                                                                                                                                        MDSTIPVLGTELTPINGREETPCYKQTLSPTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VDEGGGWLPQETLELSGSRLEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000US-025340AP.
2000US-025366P.
2001US-0270266P.
2001US-0270286P.
2001US-0282359P.
2001US-0282359P.
2001US-0282358P.
2001US-0282358P.
2001US-0282359P.
2001US-0282365P.
2001US-0289917P.
2001US-0309917P.
                                                                                                                                                                                                                                                                  95.7%; So lilarity 100.0%; I Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                        ß,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2001WO-US044386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       n coupled receptor; GPCR; hRUP28; hRUP29; hRUP30; hRUP31; hRUP34; hRUP35; hRUP36; hRUP37.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    coupled receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Dang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HT,
                                                                                                                                                                                                                                                                  Score 1688; DB 5;; Pred. No. 1.2e-172; 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lowitz KP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    hRUP37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pride
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         G
                                                                                                                                                                                                                                                                                                                  Length 322;
                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          receptor
                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                               sequence
                           195
                                                                         120
                                                                                                                            135
                                                                                                                                                                         60
                                                                                                                                                                                                                                                                       0
```

```
RESULT 4
ANBE21296
ID AAB2
XX AAB2
XX AAB2
XX AAB2
XX Huma
XX Huma
XX Huma
XX Homc
XX 
                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                     Query Match
Best Local S
Matches 322
                                                                                                                                                                                                                                                The invention relates to Mrg (mas-related gene) protein, which is a G-protein coupled receptor and drg-12 protein, which is a receptor. The invention is useful for identifying compounds that bind to it, especially agonists or antagonists. Administration of an agent (e.g. the identified agonist) that increases the expression of Mrg in a mammal may be used for treating impaired sensory perception in a mammal, especially pain. The antagonist may also be useful for treating impaired sensory perception in a mammal. The present sequence is human MrgX3 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Isolated polypeptide, Mrg, which is a G-protein coupled receptor a isolated polypeptide, drg-12, which is also a receptor, useful for identifying agonists or antagonists for treating pain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 04-MAY-2000; 2000US-0202027P.
01-AUG-2000; 2000US-0222344P.
03-NOV-2000; 2000US-007070707.
19-APR-2001; 2001US-0285493P.
                                                                                                                                                                                                        Sequence 322 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 16; Page 130; 185pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Anderson DJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              04-MAY-2001; 2001WO-US014519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 08-NOV-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       receptor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human MrgX3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAB21296;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAE21296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (CALY ) CALIFORNIA INST OF TECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2002-171346/22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
mas-related gene; G-protein coupled receptor;
or; sensory perception; pain; analgesic; MrgX3
                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAD33751.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VDEGGGWLPQETLELSGSRLEQ 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VDEGGGWLPQETLELSGSRLEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IAWLVFLCVVLCGSSLVLLVRILCGSRKWPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                  95.7%;
ilarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (mas-related gene)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Dong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Zylka
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          322
                                                                                                     0,
                                                                                                  Score 1688; DB 5; 1
Pred. No. 1.2e-172;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Han
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ß
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Simon
                                                                                                                                                     Length 322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               drg-12
                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein;
                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   an
        60
                                                     75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                          0
```

```
ADII 6993
AC ADII
AC ADI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
14-MAR-2001;
15-MAR-2001;
15-MAR-2001;
16-MAR-2001;
16-MAR-2001;
20-MAR-2001;
26-MAR-2001;
26-MAR-2001;
29-MAR-2001;
                                                                                                                                                                                                                 02-FEB-2001
05-FEB-2001
07-FEB-2001
07-FEB-2001
08-FEB-2001
09-FEB-2001
15-FEB-2001
15-FEB-2001
26-FEB-2001
27-FEB-2001
27-FEB-2001
27-FEB-2001
12-MAR-2001
14-MAR-2001
14-MAR-2001
14-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       31-JAN-2001;
31-JAN-2001;
31-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          human; NOVX; cardiomyopathy; atherosclerosis; cancer; diabetes; inflammation; autoimmune disorder; allergy; blood disorder; acquired immunodeficiency syndrome; AIDS; obesity; asthma; immunoglobulin (Ig)A nephropathy; cirrhosis; arthritis; Alzheimer's disease; infection; str.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  31-JAN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  06-SEP-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human NOVX protein homologue SeqID 529.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15-APR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADI16993 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VDEGGGWLPQETLELSGSRLEQ 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RIHLDWKVLFCHVHLVSIFLSALNSSANFIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VSIYILNLVAADFLFLSGHIICSFLRLINIRHFISKILSFVMTFFYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IAWLVFLCVVLCGSSLVLLVRILCGSRKWPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                      2001US-0265514P
2001US-0266406P
2001US-0266406P
2001US-0266767P
2001US-0267057P
2001US-026795P
2001US-026795P
2001US-0271669
2001US-0271689P
2001US-0272788
2001US-02727894P
2001US-0275947P
2001US-0275947P
2001US-0276448P
2001US-027648P
2001US-027668P
2001US-02786768P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2002WO-US002785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2001US-0265395P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        255
```

```
11-APR-2001
11-APR-2001
20-APR-2001
23-APR-2001
03-MAY-2001
03-MAY-2001
29-MAY-2001
19-MAY-2001
18-JUN-2001
18-JUN-2001
18-JUN-2001
119-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29-MAR-2001;
30-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (CURA-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001US-0279884P.
2001US-0282997P.
2001US-0283083P.
2001US-0285133P.
2001US-0285749P.
2001US-0288527P.
2001US-02885473P.
2001US-0294473P.
2001US-029959P.
2001US-029959P.
2001US-0312889P.
2001US-0312889P.
2001US-0312889P.
2001US-0312889P.
2001US-0312889P.
2001US-0312889P.
2001US-0313470P.
2001US-0318447P.
2001US-0318447P.
2001US-0318447P.
2001US-0318447P.
2001US-0318447P.
2001US-031874P.
2001US-0333379P.
2001US-0333339P.
2001US-03333309B.
```

CURAGEN CORP.

Gerlach VL, Taupıcı Gerlach VL, Grosse WM, Tchernev VI, ev VT, Spytek KA, Zerhusen BD, Patturajan M, Gangolli EA, Padigaru M, Anderson DM, Raste h VL, Taupier RJ, Gusev VY, Colnan SD, Wole K, Grosse WM, Alsobrook JP, Lepley DM, Rie ajan M, Shimkets RA; Rastelli L, Miller CE; Wolenc AR, Pena CEA; 1, Rieger DK, Burgess CE Burgess CE;

WPI; 2002-706998/76.

New NOVX polypeptides and nucleic acids, useful for preventing or treating NOVX-associated disorders, e.g. cancer, cardiomyopathy, atheroscierosis, or diabetes, and in chromosome mapping, tissue typing pharmacogenomics. õ

Disclosure; SEQ ID NO 529; 1498pp; English

This invention relates to a novel nucleic acids, and encoded polypeptides thereof, which have properties related to the stimulation of biochemical corphysiological responses in a cell, tissue, organ or organism.

CC Specifically, it refers to the use of biologically active fragments for diverse pathological conditions. The present invention describes novel thuman and murine NOVX proteins, as well as methods to modulate their compression using antisense oligos, ribozymes and peptide nucleic acids. The NOVX polypeptides, polymucleotides and antibodies are useful in treating or preventing NoVX-associated disorders, e.g. cardiomyopathy, atheresclerosis, cancer and diabetes. Furthermore, they may be used in treating or preventing diseases such as inflammation, autoimmune codisorders, allergies, blood disorders, acquired immunodeficiency syndrome (AIDS), obesity, asthma, immunoglobulin (Ig)A nephropathy, cirrhosis, arthitis, Alzheimer's disease, infections, stroke, muscular dystrophy can depilepsy. Accordingly, these molecules have many activities including cytostatic, anti-HIV, antidiabetic, antiarteriosclerotic, anorectic, neuroprotective, nootropic, antiartrhritic, hepatotropic, antialergic, hepatotropic, antiartrhritic, hepatotropic, antiarteriosclerotic, ancreatic, relaxant and anticonvulsant. In addition, they are useful in screening assays to identify small molecules that modulate or inhibit, for example, used as in chromosome mapping, tissue typing, preventive medicine and pharmacogenomics. This polypeptide is a homologue of a human NOVX protein coffice of the invention. pharmacogenomics. of the invention.

Sequence 322

. 78; Score 1688; ВB υ •• Length 322

Best Local Similarity

100.0%;

Pred. No. 1.2e-172;

```
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3ULT 6
31-JAN-2001
31-JAN-2001
31-JAN-2001
31-JAN-2001
31-JAN-2001
02-FEB-2001
07-FEB-2001
07-FEB-2001
07-FEB-2001
15-FEB-2001
26-FEB-2001
27-FEB-2001
27-FEB-2001
27-FEB-2001
27-FEB-2001
27-FEB-2001
27-FEB-2001
11-FAR-2001
                                                                                                                                                                                                                                                                                                                                                  human; NOVX; cardiomyopathy; atherosclerosis; cancer; diabetes; inflammation; autoimmune disorder; allergy; blood disorder; acquired immunodeficiency syndrome; AIDS; obesity; asthma; immunoglobulin (Ig)A nephropathy; cirrhosis; arthritis;
                                                                                                                                                                                                                                                 31-JAN-2002;
                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                          Alzheimer's
                                                                                                                                                                                                                                                                                                                                                                                                          Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADI16998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADI16998
                                                                                                                                                                                                                                                                                                                                                                                                                                15-APR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           136
                                                                                                                                                                                                                                                                                                                                                                                                          XVON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VDEGGGWLPQETLELSGSRLEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IAMLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLXVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMPCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRWRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VSTYTLNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                          protein homologue
2001US-0265395P.
2001US-0265511P.
2001US-0265517P.
2001US-0266406P.
2001US-0266767P.
2001US-0267829P.
2001US-0267829P.
2001US-0267829P.
2001US-0267829P.
2001US-027839P.
2001US-0271839P.
2001US-0271839P.
2001US-0271839P.
2001US-0273948P.
2001US-0273948P.
2001US-0275947P.
2001US-0275947P.
2001US-0275989P.
2001US-0275989P.
2001US-0275989P.
2001US-0275989P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                        disease;
                                                                                                                                                                                                                                                 2002WO-US002785
                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                          SeqID 534.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ₿
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
```

```
15-MAR-2001;
16-MAR-2001;
20-MAR-2001;
20-MAR-2001;
26-MAR-2001;
29-MAR-2001;
29-MAR-2001;
11-APR-2001;
11-APR-2001;
11-APR-2001;
20-APR-2001;
20-APR-2001;
20-APR-2001;
20-APR-2001;
20-APR-2001;
20-MAY-2001;
20-MAY-2001;
21-APR-2001;
21-APR-2001;
22-MAY-2001;
23-APR-2001;
23-APR-2001;
23-APR-2001;
23-APR-2001;
23-APR-2001;
23-APR-2001;
24-APR-2001;
25-APR-2001;
26-AUG-2001;
27-AUG-2001;
28-AUG-2001;
21-AUG-2001;
21-AU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (CURA-) CURAGEN CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001US-027984P.
2001US-0282997P.
2001US-0283083P.
2001US-0283083P.
2001US-0285133P.
2001US-0286327P.
2001US-0286327P.
2001US-0294473P.
2001US-0294473P.
2001US-0294954P.
2001US-029959P.
2001US-029959P.
2001US-0312808P.
2001US-0312808P.
2001US-0312808P.
2001US-031390P.
2001US-0318447P.
2001US-0318115P.
2001US-0318115P.
2001US-03139308P.
2001US-0333308P.
2001US-0333308P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2001US-0276450P.
2001US-0276397P.
2001US-0276768P.
2001US-0278652P.
2001US-0278775P.
2001US-0278778P.
2001US-0278778P.
```

Li L, G Gerlach Furtak K Tchernev VI, ev VT, Spytek KA, Zerhusen BD, Patturaj Gangolli EA, Paddigaru M, Anderson SD, h VL, Taupier RJ, Gusev VY, Colman SD, K, Grosse WM, Alsobrook JP, Lepley DM, Patturajan M, Shimkete RA; son DW, Rastelli L, Miller CE; man SD, Wolenc AR, Pena CEA; spley DM, Rieger DK, Burgess C. B

WPI; 2002-706998/76.

New NOVX polypeptides and nucleic acids, useful for preventing or treating NOVX-associated disorders, e.g. cancer, cardiomyopathy, atherosclerosis, or diabetes, and in chromosome mapping, tissue typing pharmacogenomics. õ

Disclosure; SEQ ID NO 534; 1498pp; English

This invention relates to a novel nucleic acids, and encoded polypeptides CC thereof, which have properties related to the stimulation of biochemical CC or physiological responses in a cell, tissue, organ or organism. CC Specifically, it refers to the use of biologically active fragments for CC diagnostic and prognostic assays and furthermore in the treatment of CC diverse pathological conditions. The present invention describes novel thuman and murine NOVX proteins, as well as methods to modulate their CC expression using antisense oligos, ribozymes and peptide nucleic acids. The NOVX polypeptides, polynucleotides and antibodies are useful in CC treating or preventing NOVX-associated disorders, e.g. cardiomyopathy, CC atherosclarosis, cancer and diabetes. Furthermore, they may be used in CC treating or preventing diseases such as inflammation, autoimmune CC disorders, allergies, blood disorders, acquired immunodeficiency syndrome CC disorders, allergies, blood disorders, acquired immunodeficiency syndrome CC antiatitis, Alzheimer's disease, infections, stroke, muscular dystrophy CC and epilepsy. Accordingly, these molecules have many activities including CC planestatic, cardiant, antiinflammatory, immunosuppressive, antiallergic, hammostatic, anti-HTV, antidiabetic, anti-atteriosclerotic, anorectic, cantiasthmatic, nephrotropic, antibacterial, virucide, antiparasitic, cerample, nootropic, antibacterial, virucide, antiparasitic, cerample, neurogenesis, wound healing and angiogenesis. The nucleic acids are also cerample, neurogenesis, wound healing and angiogenesis. The nucleic acids are also

```
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ន្ត្រន្តន្ត្
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches 322;
                                                                                                                                                                                                                                                                                                                          G protein-coupled receptor modulator; antibody; immune-related disease; growth related disease; cell regeneration-related disease; AIDS; cancer; immunological-related cell proliferation the sease; autorimmune disease; Alzheimer's disease; atherosclerosis; infection; osteoathritis; allergy; osteoporosis; cardiomyopathy; inflammation; Crohn's disease; diabetes; graft versus host disease; Parkinson's disease; multiple sclerosis; pain;
                                                                                                                                                                                                                                                                               psoriasis; anxiety; depression; schizophrenia; dementia; memory loss; mental retardation; epilepsy; asthma; tuberculosis; obesity; nausea; hypertension; hypotension; renal disorder; rheumatoid arthritis; trauma;
                                                                                                                                                                                                                                                                                                                                                                                                       G protein-coupled receptor; GPCR; antigenic peptide; gene therapy; G protein-coupled receptor modulator; antibody; immune-related disease;
                                                                                                                                                                                                                                                                hypertension; hypotension; renal ulcer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     04-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            pharmacogenomics. of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        used as in chromosome mapping, tissue typing, preventive medicine and pharmacogenomics. This polypeptide is a homologue of a human NOVX protein
      N-PSDB;
                                                 Burmer GC,
                                                                                                                                        19-DEC-2001; 2001WO-US050107.
                                                                                                                                                                        08-AUG-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human G protein-coupled receptor MrgX3 protein SEQ ID NO:674.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABP81750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABP81750 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 322
                                                                                                                                                                                                      WO200261087-A2
                                                                                                                                                                                                                                   Homo sapiens.
                   2003-046718/04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16
                                                                              LIFESPAN BIOSCIENCES INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RIHLDWKVLFCHVHLVSIFLSALNSSANFIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLFFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLMLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IAMLVFLCVVLCGSSLVLLVRIICGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VDEGGGWLPQETLELSGSRLEQ 322
                                                 Roush CL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ¥
                                                                                                             2000US-0257144P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                95.7%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 1688; DB 5; 1; Pred. No. 1.2e-172;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
```

Sequence 322 AA;

```
New isolated antigenic peptides e.g., for G protein-coupled receptors (GPCR), useful for diagnosing and designing drugs for treating conditions in which GPCRs are involved, e.g. AIDS, Alzheimer's disease, cancer or
                                                                                                                                                                            diseases.
```

Disclosure; Fig 1; 523pp; English.

CC The present invention describes antigenic peptides (I) comprising: (a) CC any one of 1801 sequences (see ABP82019 to ABP83619) of 12-24 amino CC acids. Also described: (1) an assay for the detection of a particular GC acids. Also described: (1) an assay for the detection of a particular GC CC and (2) an isolated antibody having high specificity and high affinity or CC avidity for a particular GPCR. (I) can be used as GPCR modulators and in CC gene therapy. The antigenic peptides for GPCRs are useful in detecting an CC antibody against a particular GPCR, and in the production of specific CC antibodies. The peptides and antibodies are also useful for detecting the CC gPCRs and antibodies are useful for detecting the CC gPCRs and antibodies are useful for detecting the CC gPCRs and antibodies are useful for designing drugs for CC treating immune-related diseases, growth-related diseases, cell CC diseases, or autoimmune diseases, e.g. AlDS, Alzheimer's disease, CC atherosclerosis, bacterial, fungal, protozoan or viral infections, confinamention, allergies, Crohn's disease, diabetes, graft versus host confinament of the confinance disease, Parkinson's disease, multiple sclerosis, pain, psoriasis, anxiety, depression, schizophrenia, dementia, mental retardation, memory loss, epilepsy, asthma, tuberculosis, obesity, nausea, hypertension, hypotension, renal disorders, rheumatoid arthritis, trauma, ulcers, or any other disorder in which GPCRs are involved. The antibodies may be used in immunoassays and immunoabsposis. ABZ42523 to ABZ42869 encode GPCR proteins given in ABP81675 to ABP82018, which are used in the exemplification the present invention

δ 밁 S 밁 S 밁 Ś 밁 S 밁 Matches 322; Query Match Local 316 241 256 181 196 136 121 61 76 16 Н Similarity CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT VSIYILNLVAADFLFLSGHIICSFLRLINIRHFISKILSFVMTFFYFIGLSMLSAISTER MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA VDEGGGWLPQETLELSGSRLEQ RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS IAWLVELCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS VSIYILNLVAADFLELSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT Conservative 95.7%; 0 Score 1688; DB 6; Pred. No. 1.2e-172; 337 Mismatches Length 322; Indels .. Gape 135 300 240 255 180 195 120 60

301

VDEGGGWLPQETLELSGSRLEQ

322

ADH08535 gtandard; protein; 322

ADH08535;

RESULT 8
ADH08535
ID ADH0
XX
AC ADH0
XX
DT 25-M
XX 25-MAR-2004 (first entry)

MrgX3.

```
ঠ
                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                      B
                                                                                                                                     S
                                                                                                                                                                      밁
                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                             S
                                                      밁
                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local S
Matches 322
                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention relates to an isolated mas-related gene D (MrgD) polypeptide. The MrgD polypeptides are useful as therapeutics or for identifying compounds, i.e. agonists or antagonists, that alter pain perception in a mammal. The compounds are useful for treating impaired sensory perception, e.g. chronic intractable pain or neuropathic pain, promoting wound healing, restoring normal sensitivity following injury, or treating ocular conditions, particularly those associated with pressure such as glaucoma. The Mrg genes or proteins may be used as molecular probes for the detection of cells or tissues related to or involved with sensory perception. The present sequence represents a MrgA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New mas-related gene D polypeptides, useful as therapeutics or in identifying agonists or antagonists that alter pain perception in a mammal for treating impaired sensory perception, e.g. chronic intractable pain or neuropathic pain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13-MAY-2003; 2003WO-US015004
                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; SEQ ID NO 31; 220pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-JUN-2002; 2002US-00183116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO2004003133-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mas-related gene D;
sensory perception;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (CALY ) CALIFORNIA INST OF TECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                  subfamily)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2004-083025/08.
DB; ADH08534.
                                                                                                                                                                                     136 CLSILWFIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
301
                                                      241
                                                                                  256
                                                                                                               181
                                                                                                                                           196
                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                              322;
                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                             76 VSIYILMLVAADPLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                    16 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2
                                                                                                                                                                                                                                                                                     MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
VDEGGGWLPQETLELSGSRLEQ 322
                     VDEGGGWLPQETLELSGSRLEQ 337
                                                       RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                           RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                            CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                      Ŋ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Dong X,
                                                                                                                                                                                                                                                                                                                                                                                                                                  protein.
                                                                                                                                                                                                                                                                                                                                        95.7%; Scc.
100.0%; Pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MrgD; Analgesic; Vulnerary; Ophthalmological;
glaucoma; Mrg.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Zylka M,
                                                                                                                                                                                                                              LSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                          Score 1688; DB 8; Pred. No. 1.2e-172;
                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Han S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Simon MI;
                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                  315
                                                                                                                                           255
                                                                                                                                                                                                   195
                                                                                                                                                                                                                                                          135
                                                                                                                                                                                                                                                                                       60
                                                                                                                                                                                                                                                                                                                  75
                                                                                                               240
                                                                                                                                                                        180
                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                              0
```

RESULT

۰

밁

RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE

300

```
ADO44602
ID ADO4
XX ADO4
AC AD
                                                                       밁
                                                                                                                        á
                                                                                                                                                                                                                            र्
     8
                                                                                                                                                                                 片
                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention relates to a non-human mammal that carries a DNA integrated with a foreign HI77213 or its mutant gene, or a part of it. The non-human animal is particularly a rat. Such gene shows phenotypes of e.g. cataract onset, transient skin rash and proliferation-promoting activity. The foreign HI77213 gene is a gene that encodes a G protein-coupled receptor (GPCR) protein HI77213. The protein, its encoded DNA and constructed transgenic animals are useful for clarifying pathological mechanism, developing therapeutic methods and screening preventives or remedies for related diseases e.g. cataract, cancer, and dermatitis. The present sequence represents a human HI77213 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HI7T213 protein, encoded DNA and transgenic animals for clarifying pathological mechanism, developing therapeutic methods and screening preventives or remedies for related diseases e.g. cataract, cancer, a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HI7T213; transgenic; G protein-coupled receptor; GPCR; ophthalmological; cytostatic; nephrotropic; antiinflammatory; dermatological; analgesic; vulnerary; neuroprotective; human; receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 322 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 3; SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29-OCT-2002; 2002JP-00314141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-OCT-2003; 2003WO-JP013781.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO2004039972-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human HI7T213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADO44602 standard; protein; 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (TAKE ) TAKEDA CHEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2004-376191/35.
                                                                          181
                                                                                                                             196
                                                                                                                                                                                    121
                                                                                                                                                                                                                                       136
                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                    76
                                                                                                                                                                                                                                                                                                                                                                                                                                    16 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                          μ
RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                       CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                          VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                          MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                   VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NO 1; 161pp; Japanese
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              UNI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ţ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              95.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Yasuhara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 1688; DB 8;
Pred. No. 1.2e-172;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ā
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ķ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mori
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Taketomi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and
                      315
                                                                          240
                                                                                                                                255
                                                                                                                                                                                       180
                                                                                                                                                                                                                                             195
                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                             60
```

S

```
ADD29705
ADD29XX
AXA
ADD29XX
ADD29XX
ADD29XX
AXA
ADD29XX
AXA
ADD29XX
ADD29XX
AXA
ADD29XX
AXA
ADD29XX
ADD29XX
AXA
AXA
ADD29XX
AXA
ADD29XX
AXA
ADD29XX
AXA
AXA
ADD29XX
ADD29XX
AXA
ADD29XX
ADD29XX
AXA
ADD29XX
ADD29XX
AXA
ADD29XX
AXA
ADD29XX
A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
mouse comprising a GPCR gene of the invention; a mouse comprising a mutation in a GPCR transgene or in an endogenous GPCR gene; cells derived from the trasngenic mice; kits comprising several mice, each of which has a mutation in a different GPCR gene of the invention; and kits comprising probes which hybridise to GPCR polynucleotides of the invention. The invention further discloses variants of the GPCR polypeptides and vectors comprising a GPCR nucleic acid. The GPCR nucleic acids and proteins may be used in the diagnosis, treatment or prevention of a wide variety of diseases including neurological disorders (e.g., Alzheimer's disease,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       colon disorder; intestinal disorder; cardiovascular disorder; muscular disorder; blood disorder; immune disorder; bone disorder; joint disorder; metabolic disorder; nutritive disorder; bone disorder; kidney disorder; liver disorder; lung disorder; breast disorder; kidney disorder; ruterus disorder; lung disorder; testis disorder; ovary disorder; ruterus disorder; prostate disorder; selim disorder; stomach disorder; prostate disorder; selim disorder; thymus disorder; thyroid disorder; antiparkinsonian; antimanic; cytostatic; antiinflammatory; vasotropic; antianginal; antiarrhythmic; contral nervous system; respiratory; antidiarrhoeic; antidiabetic; virucide; hepatotropic; antibacterial; antianaemic; antiseborrhoeic; dermatological; antiulcer; antibacterial; antianaemic; antiseborrhoeic;
                                                                                                                                                                                                                                                                                                                                  The invention relates to human and mouse G protein-coupled receptors (GPCRs) and nucleic acids encoding them. The invention also relates to sequences at least 90% identical to the GPCR proteins and nucleic acids of the invention; methods of treating, preventing or diagnosing diseases associated with GPCRs of the invention; methods of screening for compounds useful in the treatment of GPCR-related diseases; a transgenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Novel mammalian G protein coupled receptors, useful for identifying compounds that modulates diagnosing and treating disease condition associated with GPCR dysfunction e.g. autoimmune diseases, angina pectoris, Parkinson's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              G protein-coupled receptor; GPCR; drug screening; diagnosis; transgenic mouse; neurological disorder; adrenal gland disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaitanaris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  09-SEP-2002; 2002US-0409303P.
09-APR-2003; 2003US-0461329P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADO29705 standard; protein; 322 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Madisen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             09-SEP-2003; 2003WO-US028226.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13-MAY-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO2004040000-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADO29705;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                immunosuppressive; nephrotropic; gene therapy; GPCR modulator; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2004-390329/36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AD030080.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIMAL INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VDEGGGWLPQETLELSGSRLEQ 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GA, Bergr
Mcilwain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ID NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bergmann JE, Gragerov A, Hohmann J,
lwain KL, Pavlova MN, Vassilatis D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQ ID NO:807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        807; 542pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Li F;
Zeng H;
```

```
RESULT 11
ADF70481
ID ADF70
XX ADF70
XX 12-FE
XX 11gan
XX 11igan
XX 1igan
XX 1igan
XX 1igan
XX Cell
XX Cell
XX Cell
XX 22-FE
PR 23-JU
PR 11-0C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8888888888888888888888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cc depression, diabetic neuropathy, Parkinson's disease or schizophrenia);
cc disorders of the adrenal gland; disorders of the colon or intestine
cc (e.g., Crohn's disease, diarrhoea, food poisoning or irritable bowel
cc syndrome); cardiovascular disorders (e.g., angina, cardiac arrhythmia or
cc myocardial infarction); muscular disorders; blood disorders (e.g.,
cc macemia or leukaemia); immune disorders; blood disorders (e.g.,
cc anthritis, gout or osteoporosis); metabolic or nutritive disorders (e.g.,
cc obesity, enzyme deficiency-related diseases or vitamin deficiency-related
cc diseases); and disorders of the kidney, liver, lung, breast, ovary,
cc uterus, prostate, testis, skin, stomach, pancreas, spleen, thymus and
cc thyroid (e.g., cancers). The present sequence represents a GPCR of the
cc invention. Note: The full sequence data for this patent did not form part
cc electronic format directly from MIPO at
constant directly from MIPO at
constan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 322;
22-FEB-2002;
23-JUL-2002;
11-OCT-2002;
                                                                                                                                                                                                                                                                                                       ligand; orphan receptor protein; fusion protein; fluorescent protein; cell expression; green fluorescent protein; GFP; GFP-1; wild-type GFP; GFPuv; Enhanced GFP; EGFP; human.
                                                                                                    21-FEB-2003;
                                                                                                                                                                                                                                                                                                                                                                                                           Orphan receptor ligand-related human protein SeqID104.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 322 AA;
                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                12-FEB-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADF70481;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADF70481 standard; protein; 560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         μ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VDEGGGWLPQETLELSGSRLEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VDEGGGWLPQETLELSGSRLEQ 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
2002JP-00045728.
2002JP-00213949.
2002JP-00298237.
                                                                                                      2003WO-JP001901.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     95.7%; Score 1688; DB 8; 100.0%; Pred. No. 1.2e-172;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           75
```

```
RESULT 12
AAY90762
ID AAY90
XX AAY90
XX AAY90
XX I8-AU
DT 18-AU
DX Human
XX Genet
XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches 322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This invention relates to a novel method of identifying ligands to an orphan receptor protein which comprises transforming cells with DNA encoding a fusion protein of the orphan receptor with a fluorescent protein, so that the fusion protein is expressed in the cells (or cell membranes isolated from them) and contacting the cells with the potential ligand to be tested. A suitable fluorescent protein for incorporation in the fusion protein is green fluorescent protein (GFP), for example GFP-1, wild-type GFP, GFPuv or Enhanced GFP (EGFP). The method is useful for the identification of ligands binding to an orphan receptor protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Transformation of cells with a fusion protein protein with a fluorescent protein useful for
                                                                                                                                                                        genetic
                                                                                                                                                                                               Human; G protein-coupled receptor; hippocampus; diagnosis;
                                                                                                                                                                                                                                                   Human G protein-coupled receptor hHI7T213V SEQ ID NO:2
                                                                                                                                                                                                                                                                                                             18-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 560 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; SEQ ID NO 104; 594pp; Japanese.
                                                          WO200020455-A1
                                                                                                                                                                                                                                                                                                                                                                                                                            AAY90762 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (TAKE ) TAKEDA CHEM IND LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     the orphan receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2003-697654/66.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              316 VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                        disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VDEGGGWLPQETLELSGSRLEQ 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLFFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       V$IYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRWRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Fujii R,
                                                                                                                                                                                                                                                                                                             (first
                                                                                                                                                                        cellular function regulation
                                                                                                                                                                                                                                                                                                                                                                                                                      protein;
                                                                                                                                                                                                                                                                                                             entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     95.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ogi K,
                                                                                                                                                                                                                                                                                                                                                                                                                              322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 1688; DB 7; 1
Pred. No. 2.4e-172;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Komatsu H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Kawamata Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  of an orphan receptor identification of ligands
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Новоуа
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     560;
                                                                                                                                                                                               screening;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
```

13-APR-2000

ADI16994
ID ADI16
XX ADI16
XX

standard;

protein;

322

₹

15-APR-2004 ADI 16994 ADI16994

(first

entry)

human; NOVX; cardiomyopathy; atherosclerosis; cancer; diabetes;

SeqID 530

Human NOVX protein homologue

```
片
문
                           δ
                                                            밁
                                                                                           8
                                                                                                                             밁
                                                                                                                                                         S
                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                           片
                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                          X#X#X#X#X#X####X#X
                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                          Matches 321; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein-coupled receptor can be used for preventing, treating and diagnosing genetic diseases associated with G protein coupled protein, and for regulating cellular functions. The protein can be used to preve and treat disorders associated with G protein-coupled protein gene dysfunction. It can also be used to identify G protein-coupled protein ligands and generating antibodies and antisers against the protein. It also useful in constructing recombinant receptor protein expression systems, developing receptor-binding assay systems and screening drug candidates, and can be used as a probe in the genetic diagnosis of G protein-coupled protein disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human-derived G protein-coupled protein and encoding nucleic acid, useful e.g. in determining ligands and treatment of diseases associated with dysfunction of the protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 322 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present sequence represents a human-derived G protein-coupled protein designated hH17T213V, which is isolated from the human hippocampus. The G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 2; Page 92-93; 97pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     30-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (TAKE ) TAKEDA CHEM IND LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000-303747/26.
301
                                                                241
                                                                                              256
                                                                                                                              181
                                                                                                                                                             196
                                                                                                                                                                                             121
                                                                                                                                                                                                                           136
                                                                                                                                                                                                                                                             13
                                                                                                                                                                                                                                                                                           76
                                                                                                                                                                                                                                                                                                                                                            16
                                                                                                                                                                                                                                                                                                                           -
                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                           MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                VDEGGGWLPQETLELSGSRLEQ 337
                                                                                 RIHLDWKVLFCHVHLVSIFLSALNSSANFIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 315
                                                                                                                                                                                                              CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                             VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                              VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                              CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT
VDEGGGWLPQETLELSGSRLEQ
                                                                                                                                IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Terao Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-JP005366
                                                                                                                                                                                                                                                                                                                                                                                                         95.5%;
                                                                                                                                                                                                                                                                                                                                                                                          1;
                                                                                                                                                                                                                                                                                                                                                                                          Score 1683; DB 3;
Pred. No. 4.1e-172;
1; Mismatches 0;
322
                                                                                                                                                                                                                                                                                                                                                                                                                        Length 322;
                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        prevent
                                                                 300
                                                                                                                                240
                                                                                                                                                                255
                                                                                                                                                                                              180
                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                               135
                                                                                                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                                                                                                             75
```

18

```
31-JAN-2001
31-JAN-2001
31-JAN-2001
31-JAN-2001
02-FEB-2001
07-FEB-2001
09-FEB-2001
09-FEB-2001
15-FEB-2001
12-FEB-2001
12-FEB-2001
12-FEB-2001
12-FEB-2001
12-MAR-2001
11-MAR-2001
11-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       inflammation; autoimmune disorder; allergy; blood disorder; acquired immunodeficiency syndrome; AIDS; obseity; asthma; immunoglobulin (Ig)A nephropathy; cirrhosis; arthritis; Alzheimer's disease; infection; str.
                                               Tchernev VI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  31-JAN-2002;
            ev VT, Spytek KA, Zerhusen BD,
Gangolli EA, Padigaru M, Ande
h VL, Taupier RJ, Gusev VY, Co
                                                                                      CURAGEN
                                                                                                                   2001US-0265395P.
2001US-0265414P.
2001US-0265517P.
2001US-0266406P.
2001US-0266767P.
2001US-0266767P.
2001US-02677057P.
2001US-0267859P.
2001US-0271858P.
2001US-0277848P.
2001US-0277948P.
2001US-02778450P.
2001US-02776450P.
2001US-02776450P.
2001US-02776450P.
2001US-02776450P.
2001US-02776450P.
2001US-02776450P.
2001US-02776450P.
2001US-0278652P.
2001US-0278652P.
2001US-0278775P.
2001US-0278775P.
2001US-028830P.
2001US-0312889P.
2001US-0312889P.
2001US-03128470P.
2001US-03118115P.
2001US-0318115P.
2001US-0313390P.
2001US-0313379P.
2001US-0333379P.
2001US-0333339P.
2001US-0333339P.
2001US-0333330P.
2001US-0333339P.
2001US-0333330P.
2001US-0333330P.
2001US-0333339P.
2001US-0333330P.
2001US-0333330P.
2001US-0333330P.
2001US-0333330P.
2001US-0333330P.
2001US-03333339P.
2001US-03333339P.
2001US-0333330P.
2001US-0333330P.
2001US-0333330P.
2001US-0333330P.
2001US-0333330P.
2001US-0333330P.
2001US-0333330P.
2001US-0333330P.
2001US-03333330P.
2001US-0333330P.
2001US-03333330P.
2001US-0333330P.
2001US-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2002WO-US002785
                                                                                      CORP
            n BD, Patturajan M,
Anderson DW, Raste
Y, Colman SD, Wole
Rastelli L, Miller (
Wolenc AR.
```

```
This invention relates to a novel nucleic acids, and encoded polypeptides core thereof, which have properties related to the stimulation of biochemical core physiological responses in a cell, tissue, organ or organism.

CC Specifically, it refers to the use of biologically active fragments for conditions. The present invention describes novel diverse pathological conditions. The present invention describes novel human and murine NOVX protesins, as well as methods to modulate their cc expression using antisense oligos, ribozymes and peptide nucleic acids. CC The NOVX polypeptides, polynucleotides and antibodies are useful in cc treating or preventing NOVX-associated disorders, e.g. cardiomyopathy, ctreating or preventing diseases such as inflammation, autoimmune cc disorders, allergies, blood disorders, acquired immunodeficiency syndrome (AIDS), obesity, asthmatic, immunoglobulin (Ig)A nephropathy, cirrhosis, carchiner's disease, infections, stroke, muscular dystrophy cardinatic, antiinflammatory, immunosuppressive, antializagic, antiastratic, nephrotropic, antibaterial, virucide, antiparasitic, cardiant, antiinflammatory, immunosuppressive, antializagic, cassays to identify small molecules have many activities including crelaxant and anticonvulsant. In addition, they are useful in screening cassays to identify small molecules that modulate or inhibit, for example, cardiant, antializabetic, antiarteriosclerotic, ancides are also used as in chromosome mapping, tissue typing, preventive medicine and confident invention.

CC presented the propertion of the preventive medicine and polypeptide is a homologue of a human NOVX protein
  Matches 321;
                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New NOVX polypeptides and nucleic acids, useful for preventing or treating NOVX-associated disorders, e.g. cancer, cardiomyopathy, atherosclerosis, or diabetes, and in chromosome mapping, tissue typing
                                                                                        Sequence
                                                                                                                                  pharmacogenomics. of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          pharmacogenomics.
                         Local
                         Similarity
                                                                                           322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Grosse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 530; 1498pp; English
Conservative
                                                                                           B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ¥,
                     95.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Alsobrook JP,
                     Score 1683; DB 5;
Pred. No. 4.1e-172;
  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Lepley DM,
                                          Length
  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Rieger DK,
  0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Burgess
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    õ
```

```
S
                                         당
                                                        S
                                                                                  밁
                                                                                                   Ś
                                                                                                                            밁
                                                                                                                                             Ś
                                                                                                                                                                       밁
                                                                                                                                                                                         Ś
                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                 ş
301
                    316
                                         241
                                                                                    181
                                                                                                        196
                                                                                                                             121
                                                                                                                                                  136
                                                                                                                                                                        2
                                                                                                                                                                                           76
                                                                                                                                                                                                                                      16
                                                                                                                                                                                                                _
                                                                                                                                                                      MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                         CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                          RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                       RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                   IAMLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                              IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
VDEGGGWLPQETLELSGSRLEQ
                   VDEGGGWLPQETLELSGSRLEQ
                                                                                                                             CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT
322
                     337
                                           300
                                                                                    240
                                                                                                                              180
                                                                                                                                                                        120
                                                                                                                                                                                             135
                                                                                                                                                                                                                   60
```

RESULT 14 ADI16999 ID ADI16 XX

ADI16999

standard; protein; 322

٠3

```
31-JAN-2001;
31-JAN-2001;
31-JAN-2001;
31-JAN-2001;
02-FEB-2001;
07-FEB-2001;
07-FEB-2001;
07-FEB-2001;
09-FEB-2001;
09-FEB-2001;
26-FEB-2001
27-FEB-2001
27-FEB-2001
27-FEB-2001
27-FEB-2001
02-MAR-2001
14-MAR-2001
14-MAR-2001
15-MAR-2001
15-MAR-2001
16-MAR-2001
16-MAR-2001
26-MAR-2001
26-MAR-2001
26-MAR-2001
27-MAR-2001
28-MAR-2001
29-MAR-2001
29-MAR-2001
29-MAR-2001
29-MAR-2001
29-MAR-2001
29-MAR-2001
29-MAR-2001
29-MAR-2001
30-MAR-2001
30-MAR-2001
31-APR-2001
31-APR-2001
21-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alzheimer's disease; infection; str.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        human; NOVX; cardiomyopathy; atherosclerosis; cancer; diabe inflammation; autoimmune disorder; allergy; blood disorder; acquired immunodeficiency syndrome; AIDS; obesity; asthma; immunoglobulin (Ig)A nephropathy; cirrhosis; arthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200268649-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human NOVX protein homologue SeqID
2001US-0299324p
2001US-0312020p
2001US-0312880p
2001US-0312908p
2001US-0313900p
2001US-0315470p
2001US-0316447p
2001US-0316447p
2001US-0318115p
2001US-0318115p
2001US-0318740p
2001US-033379p
2001US-03330245p
2001US-0330345p
                                                                                                                                                                                 2001US-027644BP.
2001US-0276450P.
2001US-027676BP.
2001US-027877BP.
2001US-027877BP.
2001US-027877BP.
2001US-0279884P.
2001US-0279884P.
2001US-0280147P.
2001US-028832P.
2001US-028832P.
2001US-028832P.
2001US-028832P.
2001US-028832P.
2001US-029474P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2001US-0272788P
2001US-02727846P
2001US-0275925P
2001US-0275947P
2001US-027594P
2001US-0275989P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2001US-0271664P.
2001US-0271839P.
2001US-0271855P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2001US-0267823P.
2001US-0268974P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2001US-0266406P.
2001US-0266767P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2001US-0265514P.
2001US-0265517P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2001US-0265395P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2002WO-US002785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -0266975P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       diabetes;
```

```
Tchernev VT,
                                                                        14-NOV-2001; 2001US-0332701P
```

Gerlach n VL, Taur-K, Grosse WM, ev VT, Spytek KA, Zerhusen BD, Patturajan M, Shimkets RA; Gangolli EA, Padigaru M, Anderson DW, Rastelli L, Miller CE; h VL, Taupier RJ, Gusev VY, Colman SD, Wolenc AR, Pena CEA; K, Grosse wM, Alsobrook JP, Lepley DM, Rieger DK, Burgess C Pena CEA; Burgess CE;

New NOVX polypeptides and nucleic acids, useful for preventing or treating NOVX-associated disorders, e.g. cancer, cardiomyopathy, atherosclerosis, or diabetes, and in chromosome mapping, tissue typing atherosclerosis, pharmacogenomics. õ

Disclosure; SEQ ID NO 535; 1498pp; English

Cd diagnostic and prognostic assays and furthermore in the treatment of Cd diverse pathological conditions. The present invention describes novel C human and murine NOVX proteins, as well as methods to modulate their CC expression using antisense oligos, ribozymes and peptide nucleic acids. CC The NOVX polypeptides, polynucleotides and antibodies are useful in CC treating or preventing NOVX-associated disorders, e.g. cardiomyopathy, CC atherosclarosis, cancer and diabetes. Furthermore, they may be used in CC treating or preventing diseases such as inflammation, autoimmune CC disorders, allergies, blood disorders, acquired immunodeficiency syndrome CC disorders, allergies, blood disorders, acquired immunodeficiency syndrome CC disorders, largingly, these molecules have many activities including CC arthritis, Alzheimer's disease, infections, stroke, muscular dystrophy CC ardiant, antiinflammatory, immunosuppressive, antiallergic, CC haemostatic, anti-HIV, antidiabetic, antiarteriosclerotic, anorectic, CC neuroprotective, nootropic, antisathratici, hepatotropic, antialtergic, crelaxant and anticonvulsant. In addition, they are useful in screening CC assays to identify small molecules that modulate or inhibit, for example, confirm the invention mand anglogenesis. The nucleic acids are also used as in chromosome mapping, tissue typing, preventive medicine and confirm inconfirm the invention. or physiological responses in a cell, tissue, organ or organism. Specifically, it refers to the use of biologically active fragments for This invention relates to a novel nucleic acids, and encoded thereof, which have properties related to the stimulation of pharmacogenomics. This of the invention. polypeptides biochemical

Sequence 322 AA;

Similarity

95.5%;

Score 1683; DB 5; Pred. No. 4.1e-172; 1; Mismatches 0;

Length 322; Indels

0;

Gaps

Conservative

```
片
                                                         S
                                                                                     밁
                                                                                                            8
                                                                                                                                      문
                                                                                                                                                          Ş
                                                                                                                                                                                                        5
                                                                                                                                                                                      밁
                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                       Query Match
Best Local S
Matches 321
316 VDEGGGWLPQETLELSGSRLEQ
                                                                                       181
                                                                                                             196
                                                                                                                                      121
                                                                                                                                                              136
                                                                                                                                                                                                                                                                                      321;
                                                                                                                                                                                                                                       61
                                                                                                                                                                                                               76
                                                    RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPB
                                                                                                  IAWIVFLCVVLCGSSLVLLVRILCGSRKWPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                   CLSILWPIWYHCRRPRYLSSVMCVLLWALSILRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                       VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                       VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                     RIHLDWKVLFCHVHLVSIFLSALNSSANFIIYFFVGSFRQRQNRQNLKLVLQRALQDTPB
                                                                                                                                      CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCBTSDFIT
                                                                                     IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                195
                                                               315
                                                                                       240
                                                                                                                                        180
                                                                                                                                                                                        120
                                                                                                                                                                                                                 135
                                                                                                                                                                                                                                          60
                                                                                                                                                                                                                                                                 75
```

밁

301

VDEGGGWLPQETLELSGSRLEQ 322

```
ARESULT 15
ADC86821
ID ADC86
XX ADC86
XX ADC86
XX ADC86
XX ADC86
XX Human
XX Human
XX Homo
XX New
PT Suwa
XX New
PT Suwa
XX New
PT Suma
X
                                                                                                                         밁
                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 321; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention relates to a novel polynucleotide encoding a guanosine triphosphate-binding protein coupled receptor (GPCR). A polynucleotide of the invention may have a use in gene therapy. The polynucleotide and polypeptide are useful for preparing a composition for treating a patient in need of increased or suppressed activity or expression of the guanosine triphosphate-binding protein coupled receptor. The protein sequences shown in ADC85549-ADC87617 represent GPCR's of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New polynucleotide, useful for preparing a composition for treating a patient in need of increased or suppressed activity or expression of the guanosine triphosphate-binding protein coupled receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 322 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 2; SEQ ID NO 1274; 28pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-PSDB; ADC86820.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Suwa M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EP1270724-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-JAN-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2003-315783/31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (NAAD-) NAT INST ADVANCED IND SCI & TECHNOLOGY. (ADSC-) CENT ADVANCED SCI & TECHNOLOGY INCUBATIO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18-JUN-2001; 2001JP-00246789.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-JUN-2002; 2002EP-00013517.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         02-JAN-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          human; GPCR; guanosine triphosphate-binding protein coupled receptor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human GPCR protein SEQ ID NO:1274.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADC86821;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADC86821 standard; protein; 322 AA.
                             256 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 315
                                                                                                                            181
                                                                                                                                                                                       196
                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                      136 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 195
                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                            76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Asai K, Akiyama Y,
                                                                                                                                                         IAMLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                        CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                 VSIYILMLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                  VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                            IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 95.5%;
99.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 1683; DB 7; Length 322; Pred. No. 4.1e-172; Indels 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Aburatani H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                       255
                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        75
      300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
```

Search completed: October 27, 2004, 08:30:17 Job time : 160 secs

Run

9

OM protein -

Title: Perfect score:

Sequence:

Scoring table:

```
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          protein search, using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Issued_Patents_AA:*

1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*

2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*

3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*

4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*

5: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*

6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-867-570-2
1763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    October 27, 2004, 08:24:28; Search time 40 Seconds (without alignments) 558.729 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         478139 seqs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gapop 10.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MESKSSWVIRLGFLSMDSTI.....EGGGWLPQETLELSGSRLEQ
     93.1
90.6
79.7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
   GenCore version (c) 1993 - 2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gapext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         66318000
US-09-254-227A-3
US-09-254-227A-5
US-09-254-227A-9
US-09-254-227A-1
US-09-254-227A-1
US-09-254-227A-1
US-09-254-227A-1
US-09-254-227A-1
US-09-254-227A-1
US-08-118-270-52
US-08-118-270-76
PCT-US93-08528-76
US-08-118-270-76
PCT-US93-08528-76
US-09-480-784-6
US-09-486-68-2
US-09-486-68-2
US-09-745-945-21
US-07-759-568-1
US-07-759-568-1
US-09-745-942-21
US-08-390-000A-5
US-08-490-000A-5
US-08-490-000A-5
US-08-490-000A-5
US-08-490-000A-5
US-08-490-7780-8
US-08-30-000A-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Compugen
Sequence 3, Appli
Sequence 7, Appli
Sequence 9, Appli
Sequence 11, Appli
Sequence 11, Appli
Sequence 13, Appli
Sequence 15, Appli
Sequence 52, Appli
Sequence 52, Appli
Sequence 76, Appli
Sequence 6, Appli
Sequence 6, Appli
Sequence 1, Appli
Sequence 21, Appli
Sequence 21, Appli
Sequence 8, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Ahmad; Sultan
APPLICANT: Banville, Denis
APPLICANT: Bortin, Yves
APPLICANT: Lembo, Paola
APPLICANT: Lembo, Paola
APPLICANT: O'Donnell, Dajan
APPLICANT: Shi-Hsiang, Shen
APPLICANT: Shi-Hsiang, Shen
CITILE OF INVENTION: G Protein-Coupled Receptors fro
FILE REFERENCE: 81823/268117
CURRENT APPLICATION NUMBER: US/09/254,227A
CURRENT APPLICATION NUMBER: US/09/254,227A
CURRENT FILING DATE: 1999-03-03
NUMBER OF SEQ ID NOS: 22
SOFTWARE: Patentin version 3.0
SEQ ID NO 3
LENGTH: 322
TYPE: PRT
ORGANISM: Homo sapiens
US-09-254-227A-3
                               S
                                                                      밁
                                                                                                 Ś
                                                                                                                                                                      S
                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                              밁
                                                                                                                                                                                                                                                                                       뭐
                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 1
US-09-254-227A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 3, Application US/09254227A Patent No. 6696257 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 313; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               219.5
219.5
219.5
218.5
218.5
218.5
218.5
218.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
210.7
                                      316
                                                                                                                                                                                                                  301
                                                                         241
                                                                                                                                                181
                                                                                                                                                                                 196
                                                                                                                                                                                                                                                                                                                                                             51
                                                                                                                                                                                                                                                                                                             76 VSIYILNLVAADFLFLSGHIICSFLRLINIRHPISKILSFVMTFPYFIGLSMLSAISTER
                                                                                                                                            VDEGGGWLPQETLELSGSRLEQ
                                                                         RIHLDWKYLFCHYHLVSIFLSALNSSANFIIYFFYGSFRQRQNRQNLKLYLQRALQDTPB
                                                                                            RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                          VSIYILNLVAANFLELSGHIIFSPLPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
       VDEGGGWLPQETLELSGSKLEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             93.1%; Score 1642; I
97.2%; Pred. No. 8.76
tive 5; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-120-601B-9
US-08-271A-9
US-08-467-125-2
US-08-911-320A-2
US-09-217-101-2
US-09-27-16-160B-6
US-09-251-599B-3
US-09-45-455A-3
US-09-171-434-3
US-09-351-198-5
US-09-351-198-5
US-09-113-426-5
US-09-170-496D-8
                                                                                                                                                                                                                                                                                                                                                                                                                               <u></u> წ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-170-496D-168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ALIGNMENTS
                                      337
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; DB 4;
3.7e-138;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        322;
```

Rat

and

168,

**ωναναναναννννοδο** Appli Appli

0,

Gaps

60 75

255

180 195 120

300 315 240 Result

Score

11405 11405 11405 11391 11391 11360 834.5 388.5 388.5 388.5 388.5 225.5 225.5 225.5 225.5 225.5 225.5 225.5 225.5 226.5 226.5 226.5 226.5 226.5 226.5 226.5 226.5 226.5 226.5 226.5 226.5 226.5

Database

Minimum DB Maximum DB

seq

Total number

```
Sequence 7, Application US/09254227A

Patent No. 6696257

GENERAL INFORMATION:

APPLICANT: Ahmad, Sultan

APPLICANT: Banville, Denis

APPLICANT: Lembo, Paola

APPLICANT: O'Donnell, Dajan

APPLICANT: O'Donnell, Dajan

APPLICANT: Shi-Heiang, Shen

ITITE OF INVENTION: G Protein-Coupled Receptors fro

FILE REFERENCE: 81823/268117

CURRENT APPLICATION NUMBER: US/09/254,227A

CURRENT FILING DATE: 1999-03-03

NUMBER OF SEG ID NOS: 22

SOFTWARE: PatentIn version 3.0

SEGUENCE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 5, Application US/09254227A

Patent No. 6696257

GENERAL INFORMATION:
APPLICANT: Ahmad, Sultan
APPLICANT: Hanville, Denis
APPLICANT: Fortin, Yves
APPLICANT: Fortin, Yves
APPLICANT: Lembo, Paola
APPLICANT: Shi-Heiang, Shen
TITLE OF INVENTION: G Protein-Coupled Receptors fro
FILE REFERENCE: 81823/268117

CURRENT APPLICATION NUMBER: US/09/254,227A

UNMBER OF SEQ ID NOS: 22

SOFTMADE: Nos: 22

SOFTMADE: Nos: 22
                                                                                                                                                                                                                                                                                                                                              RESULT 3
US-09-254-227A-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; SEQ ID NO 5; LENGTH: 322; TYPE: PRT; ORGANISM: Homo sapiens US-09-254-227A-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-254-227A-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 90.6%;
Best Local Similarity 95.6%;
Matches 307; Conservative
LENGTH: 322
                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  316 VDEGGGWLPQETLELSGSRLE 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   256 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               196 IAMLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121 CLSILWPIWYHCRRPRYLSSVMCVLLWAPSLLRSILEWMFCDFLFSGADSVRCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             136 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 VSIYILNLVAADFLFLSGHIICSPLRLINISHPISKILSPVMTFPYFIGLSMLNAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             76 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 135
                                                                                                                                                                                                                                                                                                                                                                                                                              VDEGGWWLPQETLELSGSKLE 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IAWLVFLRVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 1598; DB 4; Length 322; Pred. No. 6.9e-134; 5; Mismatches 9; Indels
                                                                                                                                          from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     from
                                                                                                                                          the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Rat and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                          and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60
```

```
APPLICANT: Ahmad, Sultan
APPLICANT: Banville, Denis
APPLICANT: Benville, Denis
APPLICANT: Bortin, Yves
APPLICANT: Lembo, Paola
APPLICANT: Comnell, Dajan
APPLICANT: O'Donnell, Dajan
APPLICANT: Shi-Hsiang, Shen
TITLE OF INVENTION: G Protein-Coupled Receptors fro
FILE REFERENCE: 81823/268117
CURRENT APPLICATION NUMBER: US/09/254,227A
CURRENT FILING DATE: 1999-03-03
NUMBER OF SEQ ID NOS: 22
CORTMINE: DATE: 1999-03-03
  S
                                            문
                                                                               Ş
                                                                                                                             片
                                                                                                                                                                  S
                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                        US-09-254-227A-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-254-227A-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      뭉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 9
LENGTH: 322
TYPE: PRT
ORGANISM: Homo mapiens
                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 270; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 9, Applic
Patent No. 6696257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 79.7%; Score 1405; DB 4; Best Local Similarity 83.9%; Pred. No. 8.7e-117; Matches 270; Conservative 18; Mismatches 34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                     136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          316 VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241 WIHVDREVLFCHVHLVSIFLSALNSSANPIIYFFVGSLRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              256 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181 VAWLIFICVVLCGSSLVLLIRILCGSRKIPLTRLYVTILLTVLVFLLCGLPFGIQFFLFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           196 IAWILVFLCVVLCGSSLVLLVRILCGSRKWPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 CLSVLWPIWYRCHRPTHLSAVVCYLLWALSLLRSILEWMLCGFLFSGADSAWCQTSDFIT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               136 CLSILWPIWYHCRRPRYLGSVMCVLLWALSLLRSILEMMFCDFLFSGADSVWCETSDFIT 195
                                                                                                                               61 FSIYILNLAAADFLFLSGRLIYSLLSFISIPHTISKILYPVMMFSYFAGLSFLSAVSTER 120
                                                                                                                                                          76 VSIYILNIVAADPLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 135
                                                                                                                                                                                                                                           16 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61 FSIYILNLAAADFLFLSGRLIYSLLSFISIPHTISKILYPVMMFSYFAGLNFLSAVSTDR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   76 VSIYILNLVAADPLPLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLICIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                 1 MDPTVSTLDTELTPINGTEETLCYKQTLSLTVLTCIVSLVGLTGNAVVLMLLGCRWRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MDPTVSTLDTELTPINGTEETLCYKQTLSLTVLTCIVSLVGLTGNAVVLWLLGCRMRRNA 60
                                                                  CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Application US/09254227A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PatentIn version 3.0
                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                      78.9%; Score 1391; DB 4; 83.9%; Pred. No. 1.5e-115;
                                                                                                                                                                                                                                                                                                    16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     322
                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    from the
                                                                                                                                                                                                                                                                                                                                       Length 322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 322,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Rat
                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                   60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 255
      255
                                                180
```

```
RESULT 6
US-09-254-227A-13
                                                                                                                                                                               S
                                                                                                                                                                                                            밁
                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                  멍
                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-254-227A-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-254-227A-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
 Sequence 13, Application US/09254227A
Patent No. 66596257
GENERRAL INFORMATION:
APPLICANT: Ahmad, Sultan
APPLICANT: Banville, Denis
APPLICANT: Fortin, Yves
APPLICANT: Lembo, Paola
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 11, Application US/09254227A Patent No. 6696257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches 267;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE:
SEQ ID NO 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: O'Donnell, Dajan
APPLICANT: Shi-Hsiang, Shen, Shen TITLE OF INVENTION: G Protein-Coupled Receptors from the Rat and Human
FILE REFERENCE: 81823/268117
FILE REFERENT APPLICATION NUMBER: US/09/254,227A
CURRENT FILING DATE: 1999-03-03
NUMBER OF SEQ ID NOS: 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ENGTH: 322
                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                     136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                  256 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                            76
                                                                                                                                                                                                                          RIHLDWKYLFCHYHLYSIFLSALNSSANPIIYFFYGSFRQRQNRQNLKLYLQCRALQDTPB 315
                                                                                                                                                                                                                                                                                                                                         CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILBWMPCDFLFSGADSVWCETSDFIT 195
                                                                                                                                                                                                                                                                                                                                                                                                 VSIYILNLVAADPLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLSVLWPIWYRCRRPTHLSAVVCVLLWAGLLLFSMLEWRFCDFLFSGADSSWCETSDFIP
                                                                                                                                                                                                                                                                                                                                                                                 VSIYILMLAAADFLFLSFQIICRPLRLINISHLIRKILVSVMTFPYFTGLSMLSAISTER
                                                                                                                                                       VDKGEGQLPESSLELSGRRL
                                                                                                                                                                               VDEGGGWLPQETLELSGSRL 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VDEGGGQLPQETLELSGSRLEQ 322
Ahmad, Sultan
Banville, Denis
Fortin, Yves
Lembo, Paola
                                                                                                                                                                                                            RMHLNLEVLYCHVYLVCMSLSSLNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDKPB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Fortin, Yves
Lembo, Paola
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ahmad, Sultan
Banville, Den
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             78.2%;
83.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Denis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 1379; DB 4;
Pred. No. 1.8e-114;
                                                                                                                                                       320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                               255
                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                            135
                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                        60
```

```
JAPPLICANT: Fortin, Yves

APPLICANT: Lembo, Paola

APPLICANT: O'Donnell, Dajan

APPLICANT: Shi-Hsiang, Shen

TITLE OF INVENTION: G Protein-Coupled Receptors from the Rat and Human

FILE REFERENCE: 81023/268117

CURRENT APPLICATION NUMBER: US/09/254,227A

CURRENT FILING DATE: 199-03-03

NUMBER OF SEQ ID NOS: 22

SOFTWARE: PatentIn version 3.0

SEQ ID NO 1

LENOTH: 337

TYPE: PRT

ORGANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; APPLICANT: O'Donnell, Dajan
; APPLICANT: Shi-Hsiang, Shen
; TITLE OF INVENTION: G Protein-Coupled Receptors fro
; FILE REFERENCE: 81823/268117
; CURRENT APPLICATION NUMBER: US/09/254,227A
; CURRENT FILING DATE: 1999-03-03
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: Patentin version 3.0
; SEQ ID NO 13
; LENGTH: 322
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-254-227A-13
 맑
                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                       ) ORGANISM: rat
US-09-254-227A-1
                                                   Query Match
Best Local S
Matches 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches 264;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                   Local Similarity
les 174; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               76 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 135
  12
                                                                                                                                                                                                                                                                                                                                                                                                                              VDEGGGWLPQETLELSGSRL 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FLSMDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RMHLNLEVLYCHVYLVCMSLSSLNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDKPB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VSIYILNLAAADFLFLSFQIIRSPLRLINISHLIRKILVSVMTFPYFTGLSMLSAISTER
                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    77.1%; Score 1360; DB 4; 82.5%; Pred. No. 8.5e-113;
                                                   47.3%; Score 834.5; DB 4; 52.9%; Pred. No. 3.3e-66; tive 52; Mismatches 92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 322;
                                                      Indels
                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the
                                                      11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             and
                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300
    70
                             72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               315
                                                      9
```

```
RESULT 8
5320941-2
;Patent No.
                                                                                                                                                RESULT 9
US-08-118-270-52
                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: DNA SEQUENCES ENCODING MAS ONHCOGENE, POLYPETIDES ENCODED THEREFROM AND DIAGNOSTIC AND OTHER METHODS RASED THEREFROM, NUMBER OF SEQUENCES: 2
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/06/872,087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ottavio
                                                                                                               Sequence 52, Appli
Patent No. 5508384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches 101; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                 GENERAL INFORMATION:
             TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 06-JUN-1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NO:2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               131
                                                                                                                                                                                                                  273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              188
                                                                                                                                                                                                                                                                                                                                                                                                                                                    107 HPISKILSPVMTFPYFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSL 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        52 VSLVALTGNAVVLWLLGCRMRRNAVSIYILNLVAADFLFLSGHIICS-----PLRLINIR 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               71 RKAISVYVLNLSLADSFFLCCHFIDSLMRIMNFYGIYAHKLSKEILGNVAFIPYISGLSI 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5320941
                                                                                                                                                                                                                  SSANNFIYFFVGSSKKKRFKQSLKVVTTRAFKD
                                                                                                                                                                                                                                     SSANPIIYFFVGSFRQRQNRQNLKLVLQRALQD 312
                                                                                                                                                                                                                                                                                    NTWASHSSKLYIVIMVTIIIFLI----FAMRMRLLYLLYYEYWSTFGNLHDISLLFSTIN
                                                                                                                                                                                                                                                                                                                                                    LVTTMEYVMCIHTEEESDS----PNDCPAVIIFIAILSFLVFTGLMLV-SSTILVVKIPK 216
                                                                                                                                                                                                                                                                                                                                                                                    LRSILEWMFCDFLFSGADSVWCBTSD-----FITI-AWLVFLCVVLCGSSLVLLVRILC
                                                                                                                                                                                                                                                                                                                                                                                                                   | SPVGFVENGILLWFLCFRMRRNPFTVYITHLSIADISLLFCIFILSIDYALDYELSSGH 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LKRALEETPEEDEYTDSHVQKPTEISERR 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LORALODTPEVDEGGGWLPQETLELSGSR 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GLYLFLLYWFGIHLHYP--FCHIYQVTVLLSCVNSSANPIIYFLVGSFRHRKKHRSLKMV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GIQWAL--FSRIHLDWXYLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLXLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -KNVDFIVTAFLIFLFMLLFGSSLALLVRILCGSRRKFLSRLYVTISLTVMVYLICGLFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CETSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRXMFLTRLYVTILLTVLVFLLCGLPF 247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LSAISTERCLSVLWPIWYHCHRPRNMSAIICVLIWVLSFLMGILDWFFSGFLGETHHHLW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMPCDFLFSGADSVW 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RNAVSIYILNIVAADFLFLSGHIICSFLRLINI----RHPISK-ILSFVMTFFYFIGLSM 127
                                                                                                                                                                                                                                                                                                                  GSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSALN
                                                                                                                                Application
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Young, Dallan; Wigler, Michael H.; Fasanc
                                                            Murphy, Randall B. Schuster, David I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24.0%;
               POLYPEPTIDES OF G-COUPLED PROTEIN RECEPTORS, AND COMPOSITIONS AND METHODS THEREOF 348
                                                                                                                                  US/08118270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; Score 423.5; DB 6; pred. No. 8.4e-30; 58; Mismatches 93;
                                                                                                                                                                                                                  305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 325;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                     219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 190
                                                                                                                                                                                                                                                                                    272
                                                                                                                                                                                                                                                                                                                     279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              249
                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                               र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Loc
Matches
STREET: 415 CITY: Washington
                                              CORRESPONDENCE ADDRESS:
ADDRESSEE: BROWDY AND NEIMARK
STREET: 419 Seventh Street, N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local
```

```
RESULT 10
PCT-US93-08528-52
Sequence 52, Application PC/TUS9308528
GENERAL INFORMATION:
APPLICANT: New York University
APPLICANT: New York University
TITLE OF INVENTION: POLYPEPTIDES OF G-COUPLED PROTEIN
TITLE OF INVENTION: RECEPTORS, AND COMPOSITIONS AND MF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; MOLECULE TYPE: US-08-118-270-52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEX: 248633
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
LENGTH: 282 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/08/118
FILING DATE: 09-SEP-193
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/943
FILING DATE: 10-SEP-1992
ATTORNEY/AGENT INFORMATION:
NAME: Townsend, Kevin G.
REGISTRATION NUMBER: 34,033
REGISTRATION NUMBER: 34,033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION: TELEPHONE: 202-628-5197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: amino a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADDRESSEE:
STREET: 4:
                                                                                                                                                                                                    224 LFSTINSSANPFIYFFVGSSKKKRFKESLKVVLTRAFKD
                                                                                                                                                                                                                      274 FLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQD 312
                                                                                                                                                                                                                                                                           168
                                                                                                                                                                                                                                                                                                           214 LVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSI 273
                                                                                                                                                                                                                                                                                                                                               109 SALVCALLWALSCLVTTM-YVMCIDRFEESHSRNDCRAVIIFIAILSFLVFTPSVSSTIL
                                                                                                                                                                                                                                                                                                                                                                              154 SSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFITIAWLVFLCVVLCGSSLVL
                                                                                                                                                                                                                                                                                                                                                                                                                  61 H------YYTIVTLSVTFLFGYNTGLYLLTAISVERCLSVLYPIWYRCHRPKYQ 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                   94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                    HIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTERCLSILWPIWYHCRRPRYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VVXIRKNTWASHSKLYIVIMVTIIIFLIFAMPMRLLYLLYYEY---WST-FGNLHHISL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    D.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    E: BROWDY AND NEIMARK
419 Seventh Street, N.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  202-737-3528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US 07/943,236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US/08/118,270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   52:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MURPHY=2A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 388.5; DE Pred. No. 9e-27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Suite
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         87;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            282;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                      153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60
                                                                                                                                                                                                                                                                                                                                               167
                                                                                                                                                                                                                                                                                                                                                                                  213
```

N.W.

Suite 300

COMPOSITIONS AND METHODS THEREOF

COUNTRY:

20004

```
RESULT 11
US-08-118-270-76
                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       გ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                           Sequence 76, Application US/08118270 Patent No. 5508384 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEX: 248633
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US
PILING DATE: 09-SEP-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07,
FILING DATE: 10-SEP-1992
                                   STREET: 415
CITY: Washington
STATE: D.C.
TYSA
                                                                                                                                                                 APPLICANT: Murphy, Randall B.
APPLICANT: Schuster, David I.
TITLE OP INVENTION: POLYBEPTIDES OF G-COUPLED PROTBIN
TITLE OP INVENTION: RECEPTORS, AND COMPOSITIONS AND METHODS THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY: 11 MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REPERENCE/DOCKST NUMBER: MURPHY=2 PCT TELECOMMUNICATION INFORMATION: TELEPHONE: 202-628-5197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
NAME: Townsend, Kevin G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                              NUMBER OF SEQUENCES: 3
ZIP: 20004
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE: 202-737-3528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: Townsend, Kevin G. REGISTRATION NUMBER: 34,033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: PatentIn Release #1.0, Version #1.25
                                 COUNTRY: USA
                                                                                                               ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH:
                                                                                                                                                                                                                                                                                                                                                                              224 LFSTINSSANPFIYFFVGSSKKKRFKESLKVVLTRAFKD 262
                                                                                                                                                                                                                                                                                                                                                                                                  274 FLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQD 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                      168 VVKIRKNTWASHSSKLYIVIMVTIIIFLIFAMPMRLLYLLYYBY---WST-FGNLHHISL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         214 LVRILCGSRKMPLTRLYVTILLTVLVFLLCGLFFGIQWALFSRIHLDWKVLFCHVHLVSI 273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  154 SSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFITIAWLVFLCVVLCGSSLVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61 H------YYTIVTLSVTFLFGYNTGLYLLTAISVERCLSVLYPIWYRCHRPKYQ 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      94 HIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTERCLSILWPIWYHCRRPRYL 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    52 VSLVALTGNAVVLW-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SALVCALLWALSCLVTTM-YVMCIDRFEESHSRNDCRAVIIFIAILSFLVFTPSVSSTIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ISPVGFVENGILLWFLCFFTVYTHLSIADISLLFC-----IFILSIDYALDYELSSG
                                                                                           419 Seventh Street, N.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               282 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linear
                                                                                                               BROWDY AND NEIMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TUMBER: US 07/943,236
10-SEP-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22.0%; Score 388.5; DB 34.4%; Pred. No. 9e-27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PCT/US93/08528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         53; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -----LLGCRMRRNAVSIYILNL-VAADFLFLSG
                                                                                             Suite 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             87;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 282;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60
```

```
RESULT 12
PCT-US93-08528-76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       뭉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; MOLECULE TYPE: peptide US-08-118-270-76
                                                                                                                                                                                                                                                                        Sequence 76, Application PC/TUS9308528
GENERAL INFORMATION:
APPLICANT: New York University
TITLE OF INVENTION: POLYPEPTIDES OF G-COUPLED PROTEIN
TITLE OF INVENTION: RECEPTORS, AND COMPOSITIONS AND METHODS THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO:
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0
                                                                                                                                                                                       NUMBER OF SEQUENCES: 348
CORRESPONDENCE ADDRESS:
ADDRESSEE: BROWDY AND NEIMARK
STREET: 419 Seventh Street, N.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: TOWNSER: 34,033
REGISTRATION NUMBER: 34,033
REFERENCE/DOCKET NUMBER: MUJ
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 09-SEP-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/943,236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 10-SEP-1992
ATTORNEY/AGENT INFORMATION:
                                                                                                                            CITY: Washington
STATE: D.C.
COUNTRY: USA
                                                                                                        COUNTRY: U
ZIP: 20004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEPHONE: 202-628-5197
TELEFAX: 202-737-3528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    231 RDLCICINSSAKPIVYFIAGRDKSQRLWEPLRVVFQRALRDGAEPGDAASSTPNTVTMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         272 SIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPEVDEGGGWLPQB-TLEL 330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              215 VRILCGSRKMPLT-RLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDW--KVLFCHVHLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 160 LIWALSLLRSILEWMFCDFLFSGADSVWCETSDFITIAWLVF-----LCVVLCGSSLVLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   106 RHPISKI-----LSPVMTFPYFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCV 159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              48 LTCIVSLVALTGNAVVLWILGCRMRNAVSIYI--LNLVAADFLFLSGHIICSPLRLINI 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        62 GTFLGSFPDYVRRVSRIVGLTFFAGVSLLPAISIERCVSVIFPMWYWRRRPKRLSAGVCA 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            94; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LHVECRARRRORSAKLNHVVLAIVSVFLVSSIYLGIDWFLF-----WVFQIPAPFPEYV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LIWILISTIVTSIHNYFC-LIGHEASGTACLNMDISLLGILLFFLFCPIMVLPC----IAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LLCLCGLV---GNGLVLWFFGFSIKRTPFSIYIYFLHIASADGIYLFSKAV---IALLNM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     248633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 298 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SS: single
linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19.5%; Score 344; DB 1; Length 298; 31.3%; Pred. No. 8.4e-23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US/08/118,270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              58; Mismatches 114; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 76:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MURPHY=2A
    #1.0,
      Version #1.25
                                                                                                                                                                                              Suite 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   34,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11;
```

CURRENT APPLICATION DATA:

```
Sequence 6, Application US/08981825

Patent No. 6040426

GENERAL INFORMATION:
APPLICANT: OGAMA, KAZUYAUKI
APPLICANT: TANAKA, KAZUYA
APPLICANT: TAKANO, KITYA
APPLICANT: TAKANO, SYOICHI
TITLE OF INVENTION: PROTEIN SPECIFIC TO HUMAN
TITLE OF INVENTION: Th2, GENE (B19) ENCODING THE
NUMBER OF SEQUENCES: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-981-825-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PCT-US93-08528-76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 19.5%; Score 344; DB 5; Best Local Similarity 31.3%; Pred. No. 8.4e-23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO:
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: PastSEQ Version 1.5
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: Townsend, Kevin G.
REGISTRATION NUMBER: 34,033
REFERENCE/DOCKET NUMBER: MUI
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-228-5197
                                                                                                 COMPUTER READABLE FORM: MEDIUM TYPE: Diskette
                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
ADDRESSEE: Knobbe, Martens, Olson & Bear
STREET: 620 Newport Center Drive 16th Floor
CITY: Newport Beach
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 10-SEP-1992 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 09-SEP-
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: 20-
TELEFAX: 248633
                                                                                                                                           COUNTRY: U
ZIP: 92660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRANDEDNESS:
TOPOLOGY: lir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      231 RDLCICINSSAKPIVYFIAGRDKSQRLWEPLRVVFQRALRDGAEPGDAASSTPNTVTMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      215 VRILCGSRKMPLT-RLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDW--KVLFCHVHLV 271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     160 LLWALSLLRSILEWMFCDFLFSGADSVWCETSDFITIAWLVF-----LCVVLCGSSLVLL 214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  106 RHPISKI-----LSPVMTFPYFIGLSMLSAISTERCLSILWPIWYHCKRPRYLSSVMCV 159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         48 LTCIVSLVALIGNAVVLWLLGCRMRRNAVSIYI--LNLVAADFLFLSGHIICSFLRLINI 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         94; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIPLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPEVDEGGGWLPQE-TLEL 330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LHVECRARRORSAKLNHVVLAIVSVFLVSSIYLGIDWFLF-----WVFQIPAPFPEYV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTFLGSFPDYVRRVSRIVGLTFFAGVSLLPAISIERCVSVIFPMWYWRRRPKRLSAGVCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LLWILLSFLVTSIHNYFC-LLGHEASGTACLNMDISLLGILLFFLFCPIMVLPC----IAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LLCLCGLV---GNGLVLWFFGFSIKRTPFSIYIYFLHIASADGIYLFSKAV---IALLNM
                                                                                                                                                                                   ß
                                                                                                                                                            U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     202-737-3528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SS: single
linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09-SEP-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US 07/943,236
    US/08/981,825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PCT/US93/08528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                76:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         58; Mismatches 114; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MURPHY=2 PCT
                                                                                                                                                                                                                                                                                                         ENCODING THE SAME,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 298;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11;
                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 14
US-09-480-784-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-981-825-6
                                                                                                                                                                                                                                                                                                                                             Sequence 6, Applicatio patent No. 6166186 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 83;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 395 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Altman, Daniel B
REGISTRATION NUMBER: 34,115
REFERENCE/DOCKET NUMBER: MS:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 714-760-0404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS: unknown
TOPOLOGY: unknown
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION: 530 PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE:
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEPHONE: /1-
TELEPHONE: /1-
TELEPHONE: /1-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE:
                                                                                             CORRESPONDENCE ADDRESS:
ADDRESSEE: Knobbe, Martene, Olson & Bear
STREET: 620 Newport Center Drive 16th Floor
CITY: Newport Beach
STREE: CA
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
                                                                                                                                                                                                        NUMBER OF SEQUENCES:
                                                                                                                                                                                                                    TITLE OF INVENTION: PROTEIN SPECIFIC TO HUMAN Th2, GENE (B19) ENCODING
                                                                                                                                                                                                                                                                                                                            APPLICANT: OGAWA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        190 TSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     154 SSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWC------E 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    94 HIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTERCLSILWPIWYHCRRPRYL 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            41 LASILGIVENGVILFVVGCRMRQTVVTTWVLHLALSDILASASIPFFTYFLAVGHSWEIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    51 IVSLVALTGNAVVLWLLGCRMRRNAVSIYILNLVAADFL-----FLS-----G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RSLRTVLESVLVDDSELGGAG 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VSKFL-LAFLVPLAIIASSHAAVSL-RLOHRGRRRP-GRFVRLVAAVVAAFALCWGPYHV
                                                                                                                                                                                                                                                                                                                                                                                  Application US/09480784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QNIKLVIQRALQDTPEVDEGG 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FSILEARAHANPGLRPLVWRGL-----PFVTSLAFFNSVANPVLYVLTCPDMLRKLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QWALFSRIH------LDWKVLFCHVHLVSIFLSAL---NSSANPIIYFFVGSFRQRQNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AHKVCLVLWALAVLNTVPYFVFRDTISRLDGRIMCYYNVLLLNPGPDRDATCNSRQAALA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTFC-----KLHSSIFFLNMFASGFLLSAISLDRCLQVVRFVWAQNHRTVAA 147
                                                          COUNTRY: U.S.A.
ZIP: 92660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14.5%;
ilarity 25.9%;
Conservative 5
                                                                                                                                                                                                                                                                  NAGATA, KINYA
TAKANO, SYOICHI
                                                                                                                                                                                                                                                                                                     TANAKA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   unknown
                                                                                                                                                                                                                                                                                                     KAZUYAUKI
A, KAZUYA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           56;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 255.5; DB 3; Pred. No. 8e-15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MSHIM4.001APC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches 107;
                                                                                                                                                                                                                            THE SAME,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels 75;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 395;
```

Gaps

100

93 10;

OPERATING SYSTEM: DOS SOFTWARE: FastSEQ Version 1.5

```
RESULT 15
US-07-759-568-2
                                                                                                                                                                                                                                                                                                                                                                                                    ş
                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-480-784-6
                                                                                                                                                                                                                                              Sequence 2, Application US/07759568 Patent No. 5374506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 14.5%; Score 255.5; DB 3; Length 395; Best Local Similarity 25.9%; Pred. No. 8e-15; Matches 83; Conservative 56; Mismatches 107; Indels 75
                                                                                                                                                                                                           GENERAL INFORMATION: APPLICANT: Murphy,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEX: <Unknown>
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
                                                                                         APPLICANT: Murphy, Philip M.
TITLE OF INVENTION: Cloning of cDNA Encoding a Functional
TITLE OF INVENTION: Human Interleukin-8 Receptor
NUMBER OF SEQUENCES: 5
CORRESPONDENCE ADDRESS:
ADDRESSEE: Cushman, Darby & Cushman
STREET: 1615 L Street, N.W.
COMPUTER READABLE FORM:
                                                                   STREET: 1615 L STREET: Washington
               COUNTRY: USA
ZIP: 20036-5601
                                                           STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME: Altman, Daniel E
REGISTRATION NUMBER: 34,115
REFERENCE/DOCKET NUMBER: MSHIM4.001APC
TELECOMMUNICATION INFORMATION:
TELEPHONE: 714-760-0404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/480,784
FILING DATE: 10-Jan-2000
CLASSIFICATION: <UNKnown>
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: unknown
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 6:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                        300 QNLKLVLQRALQDTPEVDEGG 320
                                                                                                                                                                                                                                                                                                                                                                                                                                             265 FSLLEARAHANPGLRPLVWRGL------PFVTSLAFFNSVANPVLYVLTCPDMLRKLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 250 QWALFSRIH-----LDWKVLFCHVHLVSIFLSAL---NSSANPIIYFFVGSFRQRQNR 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         208 VSKFL-LAFLVPLAIIASSHAAVSL-RLQHRGRRRP-GRFVRLVAAVVAAFALCWGPYHV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           190 TSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGI 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 101 TTFC-----KLHSSIFFLNMFASGFLLSAISLDRCLQVVRPVWAQNHRTVAA 147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  D.C
                                                                                                                                                                                                                                                                                                                                                                    RSLRTVLESVLVDDSELGGAG 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 395 amino acids
TYPE: amino acid
STRANDEDNESS: unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 08/981,825
FILING DATE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: 714-760-9502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  75;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            93
```

```
밁
                                                                                             S
                                                                                                                                                                                               밁
                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                            Ś
밁
                         Ś
                                                                                                                               밁
                                                                                                                                                           δ
                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-07-759-568-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEX: 6714627 cush
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 354 amino acids
TYPB: AMINO ACID
                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
NAME: Scott, Watson T.
REGISTRATION NUMBER: 265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                 Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS:
TOPOLOGY: line
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEPHONE: 202-861-30
TELEFAX: 202-822-0944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER:
310
                                                               256
                                                                                              241
                                                                                                                                                                                               141
                               288 FFVGSFRQRQNRQN--LKLVLQRAL 310
                                                                                                                                 200 AKW----CMVLRILPHTFGFILPLLVMLFCYGFTLRTLFQAHMGQKHRAMRVIFAVVLIF 255
                                                                                                                                                            196 IAWLVFLCVVL-----CGSSLVLLVRILC-GSRKMPLTRLYV-----TILLTVLVF
                                                                                                                                                                                                                              137 LSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWC-ETSDFIT 195
                                                                                                                                                                                                                                                                  82
                                                                                                                                                                                                                                                                                              79 YILNLVAADFLFLSGHIICSPL--RLINIRHPISKILSPVMTFPYFIGLSMLSAISTERC 136
                                                                                                                                                                                                                                                                                                                                23 TGMPPVE-KDYSPCLVVTQTLNKYVVVVIYALVFLLSLIGNSLVMLVILYSRSNRSVTDV
                                                                                                                                                                                                                                                                                                                                                                 25 TELTPINGREETPC--YKOTLS---FTGLTCIVSLVALTGNA-VVLWLLGCRMRRNAVSI
                                                                                                                                                                                                                                                                                                                                                                                                  94;
                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                             LAIVQST-RTLTQKRHLVKFICLGIWALSLILSLPFFLFRQVFSPNNSSPVCYEDLGHNT 199
                                                                                                LLCGLPFG-----
                                                                                                                                                                                                                                                               YLLNLAMAP-AFCPDHAYLGRLQGKRLDFRTPLCKVVSLVKEVNFYSGILLLACISVDRY 140
 AFIG---
                                                               LLCWLPYNLVLLADTLMRTHVIOETCORRNELDRALDATEI-----LGFLHSCLNPIIY 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               354 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   202-861-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                single
-QNFRNGFLKMLAARGL
                                                                                                                                                                                                                                                                                                                                                                                              13.4%; Score 235.5; DB 1;
28.9%; Pred. No. 4.2e-13;
/ative 53; Mismatches 121;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     us/07/759,568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>ہ</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WTS/5683/91535/WBH
                                                                                              IQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIY 287
                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 1; Length 354;
                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                  57;
                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
```

78 81

16

Search completed: October 27, 2004, 08:34:18
Job time: 41 secs

This Page Blank (uspto)

Copyright

GenCore version 5.1.6 (c) 1993 - 2004 Compugen Ltd.

\*>>

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OM protein - protein search, using sw
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Title:
      Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                          441.5
430.5
428.5
371.2
230.5
235.5
226.5
2219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
219.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       seq length: 0 seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-867-570-2
1763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 October 27, 2004, 08:25:18; Search time 39 Seconds (without alignments) 831.412 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            283416 seqs, 96216763 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gapop 10.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 MESKSSWVIRLGFLSMDSTI......EGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PIR 79:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
    DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gapext 0.5
                                                                                                                                               AC42009
AC33611
A53752
A41795
A42009
S29248
JC8605
JC8605
JC809605
JC802096
A42096
S42096
S42096
S42096
S42096
S42096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TVHUAS
S51001
A35639
JQ1231
  I65989
A48227
A55259
A46520
JC2434
B41795
JC2338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    mode1
                                                                                                                                                                                                                                                                 transforming prote
transforming prote
transforming prote
transforming prote
transforming prote
G protein-coupled
interleukin-8 rece
interleukin-8 rece
interleukin-8 rece
somatostatin recep
interleukin-8 rece
brain-specific som
somatostatin recep
kappa opioid recep
G protein-coupled
G protein-coupled
kappa opioid recep
kappa opioid recep
somatostatin recep
somatostatin recep
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Description
```

	п О	0000XX4444400		
B & B & B & B &	Query M Best Lo Matches Qy	A39485 A39485 C;Specie C;Specie C;Date: C;Access R;Access A;Title: A;Title: A;Refere A;Access A;Refere A;Access A;Rocess	44444333331 4444493376543331	
107 HP 139 HG 160 LL 160 LT 196 LT 196 LT 215 KT 215 KT 215 LS 275 LS 303 L-	atch cal s 107 51	A39485 L'ransforming protein (mrg) - L'ransforming protein (man) C;Species: Homo sapiens (man) C;Date: 28 Feb-1992 #sequence C;Accession: A39485 R;Monnot, C.; Weber, V.; Stir Mol. Endocrinol. 5, 1477-1487 A;Title: Cloning and function A;Reference number: A39485; N A;Recession: A39485 A;Status: preliminary A;Molecule type: DNA A;Recidues: 1-378 <mon> A;Recidues: 1-378 <mon> A;Recidues: C;Superfamily: mas transformi C;Superfamily: mas transformi</mon></mon>	196.5 196.5 196.5 194.5 194.5 194.5 193.5 189 188 187.5 187.5 187.5 188.5 187.5 188.6	
HPISKILSPVMTEP   :	26.1%; 00 construction 26.1%; 10 conservative 56. Conserv	btein (m. sapiens sapi	11.1 11.1 11.1 11.1 11.1 11.0 11.0 11.0	
SKILSPVN      IPDFLAILSP IPDFLAILSP LLRSILEMMFCI :   :: : ! FCINIVKSLFLJ FCINIVKSLFLJ  : :     :    : :     :    : :       :    SQQKATRVYAN SANPIIYFFVGS SANPIIYFFVGS	26.18 37.98 vative NAVVLWLI 	(mrg) - h nns (man) sequence_1 V.; Stinna 477-1487, functional 39485; MU 39485; MU NIPROT: p3: ansforming	350 350 350 350 350 350 350 350 350 350	
MTFPYF:FSFE:FSFE:FSFE:FSFE:	56; Frescanding Seconds (1)	human '_revisic makre, J ', 1991 ', 1991 lal chara fUID: 9213	A37 A41 JC5 A41 A39 I57 JC5 S65 S49 S27 JC7 A55 A41 C41	
IGLSMLSAISTERCL:   VCLCLLVAISTERCV  ADSVWCETSDFI	oxe 461; DB 2; Len dd. No. 2.7e-31; Mismatches 81; I NAVSIYILNLVAADFLFLS                             NAVSIYILHLVAADVIYL-	A39485 A39485 Lransforming protein (mrg) - human C;Species: Homo sapiens (man) C;Date: 28.Feb-1992 #sequence_revision 17-Apr-1993 #text_change C;Accession: A39485 R;Monnot, C.; Weber, V.; Stinnakre, J.; Bihoreau, C.; Teutsch, Mol. Endocrinol. 5, 1477-1487, 1991 A;Title: Cloning and functional characterization of a novel mas A;Reference number: A39485; MUID:92130997; PMID:1723144 A;Accession: A39485 A;Status: preliminary A;Molecule type: DNA A;Residues: 1-378 <mon> A;Residues: 1-378 <mon> A;Residues: UNID:925410; GB:S78653; NID:9244209; PII C;Superfamily: mas transforming protein C;Keywords: G protein-coupled receptor; transmembrane protein</mon></mon>	963 498 498 449 629 955 965 969 369 341 341 795 795 795 795	
SILWPIWYHCRRPRYLSSVMCV 159	Length 378;  Indels 38; Gaps 10;  FLSGHIICSPLRLINIR 106 :	1993 #text_change 09-Jul-2004 au, C.; Teutsch, B.; Corvol, P.; Clauser, on of a novel mas-related gene, modulating D:1723144 NID:g244209; PIDN:AAB21255.1; PID:g244210	complement C5a ana G protein-coupled tachykinin recepto somatostatin recep interleukin-8 recep somatostatin recep somatostatin recep G protein-coupled N-formyl peptide copicid receptor mu MIP-1 alpha receptor mu MIP-1 alpha receptor mu MIP-1 alpha receptor complement C5a ana G protein-coupled somatostatin recep somatostatin recep somatostatin recep	
		ser, ating ating		

C;Species: Rattus norvegicus (Norway rat)
C;Species: Rattus norvegicus (Norway rat)
C;Date: 31-Dec-1989 #sequence\_revision 31-Dec-1989 #text\_change 09-Jul-2004
C;Accession: A31816
C;Accession: A31816
R;Young, D.; O'Neill, K.; Jessell, T.; Wigler, M.
Proc. Natl. Acad. Sci. U.S.A. 85, 5339-5342, 1988
A;Title: Characterization of the rat mas oncogene and its high-level expression in the h

RESULT TVRTAS

```
A;Reference number: A31816; MUID:88276953; PMID:2455902
A;Accession: A31816
A;Molecule type: mRNA
A;Residues: 1-24 <YOU>
A;Cross-references: UNIPROT:P12526; GB:J03823; NID:g205313; PIDN:AAA41573.1; PID:g205314; C;Genetics:
A;Gene: mas
C;Guperfamily: mas transforming protein
C;Superfamily: mas transmembrane #status predicted <TM1>
F;31-47/Domain: transmembrane #status predicted <TM2>
F;149-165/Domain: transmembrane #status predicted <TM4>
F;185-204/Domain: transmembrane #status predicted <TM4>
F;185-204/Domain: transmembrane #status predicted <TM4>
F;225-243/Domain: transmembrane #status predicted <TM4>
                                                                                                                                                                                                                                                                          Cell 45, 711-719, 1986
A,Title: Isolation and characterization of a ne A,Teference number: A01375; MUID:86218084; PMII A,Accession: A01375
A,Accession: A01375
A,Molecule type: DNA
A,Residues: 1-325 <YOU>
A,Cross-references: UNIPROT:P04201; GB:M13150; C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                            C;Species: Homo sapiens (man)
C;Date: 04-Dec-1986 #sequence_revision 04-Dec-1986 #text_change
C;Accession: A01375
C;Accession: A01375
C;Young, D.; Waitches, G.; Birchmeier, C.; Fasano, O.; Wigler, M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 transforming protein mas -
              Query Match
Best Local S
Matches 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 108; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             101
                 103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       41
                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SSANPFIYFFVGSSKKKRFRESLKVVLTRAFKDEMQPRRQEGNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SSANPIIYFFVGSFRQRQNRQNLKLVLQRALQD--TPEVDEGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NTWASHSSKLYIVIMVTIIIFLIFAMPMRVLYLYYEY---WST-FGNLHNISLLFSTIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LVTTMEYVMC--IDSGEES--HSQSDCRAVIIFIAILSFLVFTPLMLV-SSTILVVKIRK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LRSILEWMFCDFLFSGADSVWCETSD-----FITI-AWLVFLCVVLCGSSLVLLLVRILC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         YYTIVTLSVTFLFGYNTGLYLLTAISVERCLSVLYPIWYRCHRPKHQSAFVCALLWALSC 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VSLVALTGNAVVLWLLGCRMRRNAVSIYILNLVAADFLFLSGHIICS-----PLRLINIR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSALN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HPISKILSPVMTFPYFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSL 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ISPLGEVENGILLWFLCFRWRRNPFTVYITHLSIADISLLFCIFILSIDYALDYELSSGH
                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25.3%;
                              24.4%;
37.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    57;
                 56;
              Score 430.5;
Pred. No. 8.6e
66; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 446.5; DB 1
Pred. No. 3.9e-30;
7; Mismatches 96
                                                                                                                                                                                                                                                                                                                                                      a new cellular oncogene
PMID:3708691
                               8.6e-29
                                                                                                                                                                                                                                                                                           NID:g187388; PIDN:AAA36199.1; PID:g30715
                                            DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 1;
                 Indels
                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        321
                 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                    09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                      encoding
              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              219
                                                                                                                                                                                                                                                                                                                                                                        þ
               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                        protein
                                                                                                                                                                                                  prot
                                                                                                                                                                                                                                                                                                                                                      A; Gene: mas
C; Superfamily:
C; Keywords: G
                                                                       Ş
                                                                                                         밁
                                                                                                                                    8
                                                                                                                                                                    밁
                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N;Alternate
C;Species: N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
               S
                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: DNA
A; Residues: 1-324 <MET>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                           Query Match
Best Local S
Matches 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Status: nucleic
                                                                                                                                                                                                                                                                                                              Local Similarity
                 280
                                                                                                          161
                                                                                                                                                                     101
                                                                                                                                                                                                   107
                                                                                                                                                                                                                                                                                             107;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     107
                                                                                                                                                                                                                                  41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   42
SSANPIIYFFVGSFRQRQNRQNLKLVLQRALQD--TPEVDEGGG
                                               NTWASHSSKLYIVIMVTIIIFLIFAMPMRVLYLLYYBY---WSA-FGNLHNISLLFSTIN
                                                                                                                                                                                                                                                                                             Conservative
```

```
A;Molecule_type: DNA A;Residues: 1-87,'I',89-324 <RES>
A;Cross-references: EMBL:X67735; NID:g53011; PIDN:CAA47964.1; PID:g53012 C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEBS Lett. 357, 27-32, 1995

A;Title: Expression of the mouse and rat mas proto-oncogene A;Reference number: I48647; MUID:95094925; PMID:8001672

A;Accession: I48647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Date: 10-Apr-1996 #sequence_revision 19-Apr-1996 #text_change C;Accession: S51001; I48647; S29619 R;Metzger, R.; Bader, M.; Ludwig, T.; Berberich, C.; Bunnemann, FEBS Lett. 357, 27-32, 1995 A;Title: Expression of the mouse and rat mas proto-oncogene in tagreference number: S51001; MUID:95094925; PMID:8001672 A;Accession: S51001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Cross-references: UNIPROT:P30554; EMBL:X67735 R;Metzger, R.; Bader, M.; Ludwig, T.; Berberich, FEBS Lett. 357, 27-32, 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      transforming protein mas - mouse
N;Alternate names: mas proto-oncogene protein; probable G protein-coupled receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;Superfamily: mas transforming protein ;Superfamily: mas transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;Species: Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                      52 VSLVALTGNAVVLWLLGCRMRRNAVSIYILNLVAADPLFLSGHIICS-----PLRLINIR 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SANPIIYFFVGSFRQRQNRQNLKLVLQRALQD
                                                                                                                                                                                       HPISKILSPVMTFPYFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSL 166
                                                                                                                                                                                                                                                                          ISPLGFVENGILLWFLCFRMRRNPFTVYITHLSMADISLLFCIFILSTDYALDYELSSGH 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LVTTMEYVMCIDREEESHSRND----CRAVIIFIAILSFLVFTPLMLV-SSTILVVKIRKN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HPISKILSPVMTFPYFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSL 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VSLVALTGNAVVLWLLGCRMRRNAVSIYILNLVAADFLFLSGHIICS-----PLRLINIR 106
GSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSALN
                                                                                                         LRSILEWMFCDFLFSGADSVWCETSD-----FITI-AWLVFLCVVLCGSSLVLLVRILC 219
                                                                                                                                                              HYTIVTLSVTFLFGYNTGLYLLTAISVERCLSVLYPIWYTSHRPKHQSAFVCALLCALSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SANPFIYFFVGSSKKKRFKESLKVVLTRAFKD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TWASHSKLYIVIMVTIIIFLIFAMPMRLLYLLYYEY--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSALNS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LRSILEWMFC----DFLFSGADSVWCE-TSDFITI-AWLVFLCVVLCGSSLVLLVRILCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ISPVGFVENGILLWFLCFRWRRNPFTVYITHLSIADISLLFCIFILSIDYALDYELSSGH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               acid sequence not
                                                                                                                                                                                                                                                                                                                                                                              24.3%; Score 428.5; DB 2; 37.7%; Pred. No. 1.3e-28; vative 56; Mismatches 98;
                                                    --HSRSDCRAVIIFIAILSFLVETPLMLVSSS-ILVVKIRK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C.; Bunnemann,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WST-FGNLHHISLLFSTINS
                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ä
                                                                                                                                                                                                                                                                                                                                                                                                                                     324;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     the
                                                                                                                                                                                                                                                                                                                                                                              23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B.; Ganten,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       B.; Ganten,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          brain and peripheral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     brain
                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   and peripheral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       217
                                                          215
                                                                                                                                                                160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ¤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 mae
```

```
G protein-coupled receptor RTA - rat
C;Species: Rattus norvegicus (Norway.rat)
C;Bate: 22-Jan-1993 #sequence_revision 22-Jan-1993 #text_change 09-Jul-2004
C;Accession: A35639
C;Accession: A35639
R;Ross, P.C.; Figler, R.A.; Corjay, M.H.; Barber, C.M.; Adam, N.; Harcus, D.R.; Lynch, F.
Proc. Natl. Acad. Sci. U.S.A. 87, 3052-3056, 1990
A;Title: RTA, a candidate G protein-coupled receptor: cloning, sequencing, and tissue di
A;Reference number: A35639; MUID:90222168; PMID:2109324
A;Accession: A35639; MUID:90222168; PMID:2109324
A;Accession: A35639
A;Molecule type: mRNA
A;Residues: 1-343 <ROS-
A;Cross--references: UNIPROT:P23749; GB:M35297; NID:g206809; PIDN:AAA42087.1; PID:g206810
C;Koywords: G protein-coupled receptor; glycoprotein; membrane protein
C;Koywords: G protein-coupled receptor; glycoprotein; membrane protein
A;Status: preliminary
A,Molecule type: mRNA
A;Residues: 1-355 < LEB>
A;Cross-references: GB:M82873; NID:g165440; PIDN:AAA31376.1; PID:g165441
A;Cross-references: GB:M82873; NID:g165440; PIDN:AAA31376.1; PID:g165441
A;Experimental source: neutrophils
A;Note: sequence extracted from NCBI backbone (NCBIN:81526, NCBIP:81530)
C;Superfamily: vertebrate rhodopsin
C;Keywords: G protein-coupled receptor; transmembrane protein
                                                                                                                                                                              A;Cross-references: UNIPROT:P21109; GB:M74240; NID:g165438; PIDN:AAA31375.1; PID:g16543 R;Lee, J.; Klang, W.J.; Rice, G.C.; Wood, W.I.
J. Immunol. 148, 1261-1264, 1992
A;Title: Characterization of complementary DNA clones encoding the rabbit IL-8 receptor A;Reference number: A46483; MUID:92148149; PMID:1737938
A;Accession: A46483
                                                                                                                                                                                                                                                                                                                                                        R; Beckmann, M.P.; Munger, W.E.; Kozlosky, C.; VandenBos, T.; Price, Blochem. Blophys. Res. Commun. 179, 784-789, 1991
A;Title: Molecular characterization of the interleukin-8 receptor. A;Reference number: JQ1231; MUID:91378994; PMID:1898400
A;Accession: JQ1231
                                                                                                                                                                                                                                                                                                              A; Molecule type: DNA
A; Residues: 1-355 < BEC>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      interleukin-8 receptor - rabbit
(;species: Oryctolagus cuniculus (domestic rabbit)
C;species: Oryctolagus cuniculus (domestic rabbit)
C;bate: 31-Mar-1992 #sequence_revision 31-Mar-1992
C;Accession: JQ1231; A46483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  216 RILCGSRKMPLT-RLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDW--KVLFCHVHLVS 272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      48 LTCIVSLVALTGNAVVLWLLGCRMRRNAVSIYILNLVAADFLFLSGHIICSPLRLINIR-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPEVDEGGGWLPQE-TLEL 330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LLCLCGLV---GNGLVLWFFGFSIKRTPFSIYFLHLASADGIYLFSKAV---IALLNMGT 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DLCICINSSAKPIVYFLAGRDKSQRLWEPLRVVFQRALRDGAEPGDAASSTPNTVTMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HVECRARRORSAKLNHVVLAIVSVFLVSSIYLGIDWFLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CALLWLLSPLVTSIHNYFCMFLGHEASGTACLNMD-ISLGILLFFLFCPLMVLPCLALIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CVILWALSLIRSILEWMFCDFLFSGADSVWCETSDFITIAWLVF--LCVVLCGSSLVILLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FLGSFPDYVRRVSRIVG-LCTF--FAGVSLLPAISIERCVSVIFPMWYWRRRPKRLSAGV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SSANPFIYFFVGSSKKKRFRESLKVVLTRAFKDEMQPRRQEGNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21.0%;
33.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 58;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 371; DB
Pred. No. 9e-2
58; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9e-24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 110; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -WVFQIPAPFPEYVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Lyman,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           276
                                                                                                                                                                                                                                                                                                                                                                                                                                                   s:
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gera
                                                                                                                                                                                                                                                                                                                                                                                                                            A; Introns: #status absent
C; Superfamily: vertebrate rhodopsin
C; Keywords: chemotaxis; G protein-co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Title: Mapping of genes for the human C5: A;Reference number: A42009; MUID:92307681; A;Accession: C42009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C;Date: 30-Sep-1993
C;Accession: C42009
                                                                       밁
                                                                                                                                                            밁
                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Cross-references: GDB:128855; OMIM:136539
A;Map position: 19q13.3-19q13.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Molecule type: DNA
A; Residues: 1-353 <BAO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Bao,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                              δ
                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Gene: GDB:FPRL2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C; Comment: This fMet-Leu-Phe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Cross-references: UNIPROT: P25089;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Status: nucleic acid sequence not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Genomics 13, 437-440, 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FMLP-related receptor 2 -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        193
                             181
                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         133
                                                                                                                                                              65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    82
                                                                                                                                                                                                                                                                                              29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
    Conservative
                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GB:M76673; NID:g182668; or homolog, whose ligand
```

```
UDRYLAIV----HATRTLTQKRHLVKFICLGIWALSLILSLEFFLFRQVFSPNNSSPVC 192
                                                                                                                                                                                                                                                                                                                                                                                                    TERCLSILWPIWYHCRR----PRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWC 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YLLNLAMADLLF----ALTMPIWAVSKEKGWIFGTELCKVVSLVKEVNFYSGILLLACIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             YILNLVAADFLFLSGHIICSPLRLIN-----IRHPISKILSPVMTFPYFIGLSMLSAIS 132
FLHSCLNPIIYAFIG-----QNFRNGFLKMLAARGL
                                                   ALNSSANPIIYFFVGSFRQRQNRQN--LKLVLQRAL
                                                                                                                                                                   VLVFLLCGLPFGIQWALFSRIHLDWKVLFC----HVHLV--
                                                                                                                                                                                                                             YEDLGHNTAKWRMVLRILPHTFGFILPLLVMLFCYGFTLRTLFQAHMGQKHRAMRVIFAV 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGMPPVE-KDYSPCLVVTQTLNKYVVVVIYALVFLLSLLGNSLVMLVILYSRSNRSVTDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELTPINGREETPC--YKOTLS---FTGLTCIVSLVALTGNA-VVLWLLGCRMRRNAVSI 78
                                                                                                                                                                                                                                                                                   -ETSDFITIAWLVFLCVV--LCGSSLVLLVRILC-GSRKMPLTRLYV-----TILLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    57; Mismatches 109;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 240; DB 2;
Pred. No. 9.4e-13;
                                                                                                                VLLADTLMRTHVIQETCQRRNDIDRALDATEILG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                         -SIFLS 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   137
                                                                                                                   299
                                                                                                                                                                                                                                                                                             236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18
```

## N; Alternate names: FMLP-related receptor I; probable chemotactic receptor FPRH2 ;Species: Homo sapiens (man);Date: 30-Sep-1993 #text\_change L.; Gerard, N.P.; Eddy Jr., R.L.; Shows, T.B.; Gerard, human 9 **FMLP**

C5a receptor (C5AR), 81; PMID:1612600 receptor (FPR),

PID:g182669

known,

appears

ä

protein-coupled receptor; glycoprotein; transmembrane

protein

LDRCICVLHPAWAQNHRTMSLAKRVMTGLWIFTIVLTLPNFIFWTTISTTNGDTYCIFNF 180 LNLVAADFLFLSGHIICSPLRLINI----RHP----ISKILSPVMTFPYFIGLSMLSAIS 132 PINGREE-----TPCYKOTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNAVSIYI TERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMF---LNLALADFSFSA----ILPFRMVSVAMREKWPFASFLCKLVHVMIDINLFVSVYLITIIA 120 PLNETEEVLPEPAGHTVLWIFSLLVHGVTFVFGVL---GNGLVIWVAGFRWTRTVNTICY 64 13.5%; Score 238; DB 2; J 23.8%; Pred. No. 1.4e-12; ative 76; Mismatches 112; Length 353 Indels 72; ----CDFLF 180 Gaps င်္ခ 220 80

```
interleukin-8 receptor, high affinity - rabbit
N;Alternate names: fMLP receptor
C;Bpecies: Oryctolagus cuniculus (domestic rabbit)
C;Date: 22-Jan-1993 #sequence_revision 22-Jan-1993 #text_change 09-Jul-2004
C;Accession: A23669
R;Thomas, K.M.; Pyun, H.Y.; Navarro, J.
J. Biol. Chem. 265, 20061-20064, 1990
A;Title: Molecular cloning of the fMet-Leu-Phe receptor from neutrophils.
A;Reference number: A23669; MUID:91056034; PMID:1700779
A;Accession: A23669
A;Molecule type: mRNA
A;Residues: 1-354 <THO>
A;Residues: 1-354 <THO>
A;Coss-references: UNIPROT:P21109; GB:M58021; GB:J05705; NID:g165442; PIDN:AAA31377.1;
C;Superfamily: vertebrate rhodopsin
C;Keywords: G protein-coupled receptor; glycoprotein; membrane protein; neutrophil
                                                                                                          C;Species: Homo sapiens (man)
C;Date: 07-Oct-1994 #sequence revision 12-Apr-1996 #text_change
C;Accession: 137898; 138712; A53611; A39446
C;Accession: 137898; Tiffany, H.L.; Murphy, P.M.
J. Biol. Chem. 269, 26381-26389, 1994
A;Title: Comparison of the genomic organization and promoter fun
A;Reference number: 137898; MUID:95014476; PMID:7929358
    A; Cross-references:
                            A; Molecule type: DNA
A; Residues: 1-360 < RES >
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                              A; Accession: I37898
                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      융
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                      A;Status: preliminary
                                                                                                                                                                                                                                                                                  interleukin-8 receptor type B - human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 94
                                                                                                                                                                                                                                                                                                                                                                                                                                       288 FFVGSFRQRQNRQN--LKLVLQRAL 310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LLCGLPFG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AKW----CMVLRILPHTFGFILPLLVMLFCYGFTLRTLFQAHMGQKHRAMRVIFAVVLIF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IAWLVFLCVVL-----CGSSLVLLVRILC-GSRXMPLTRLYV-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LAIVOST-RTLTOKKHLVKFICLGIWALSLILSLPFFLFROVFSPNNSSPVCYEDLGHNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWC-ETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 YLLNLAMAP-AFCPDHAYLGRLQGKRLDFRTPLCKVVSLVKEVNFYSGILLLACISVDRY 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELTPINGREETPC--YKOTLS---FTGLTCIVSLVALTGNA-VVLWLLGCRMRRNAVSI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGMPPVE-KDYSPCLVVTQTLNKYVVVVIYALVFLLSLLGNSLVMLVILYSRSNRSVTDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LAFFNSCLNPILYVFMGRNFQERLIRSLPTSLERALTEVPD 330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SR--PL-RVFAAV---VASFFICWFPYELIGILMAVWLKEMLLNGKYKIILVLINPTS-S 289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YILNLVAADFLFLSGHIICSPL--RLINIRHPISKILSPVMTFPYFIGLSMLSAISTERC 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SRKMPLTRLYVTILLTVLVFLLCGLPF---GIQWALFSR---IHLDWKVLFCHVHLVSIF 274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ---AFWGDTAVERLNVFITMAKVFLILHFIIGFTVPMSIITVCYGIIAAKIHRNHMIKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
       UNIPROT: P25025; EMBL: U11869; NID: g511801; PIDN: AAB60656.1;
                                                                                                                                                                                                                                                                                                                                                                                                 -ONFRNGFLKMLAARGL 329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13.4%; Score 235.5; DB 2; 28.9%; Pred. No. 2.2e-12; tive 53; Mismatches 121;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -----IQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIY 287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 354;
                                                                                                                                             function
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             --TILLTVLVF 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                57;
                                                                                                                                                                                                                                       09-Jul-2004
                                                                                                                                             for
                                                                                                                                             human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16;
       PID:95118
                                                                                                                                           interlev
interleukin-8 receptor (clone 5Bla) - rabbit
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 09-Jul-2004
C;Accession: A53752
R;Prado, G.N.; Thomas, K.M.; Suzuki, H.; LaRosa, G.J.; Wilkinson, N.; Folco, J. Biol. Chem. 269, 12391-12394, 1994
A;Title: Molecular characterization of a novel rabbit interleukin-8 receptor A;Reference number: A53752; MUID:94230294; PMID:8175642
A;Accession: A53752
                                                                                                                                                                                                                                     RESULT 10
A53752
                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Molecule type: DNA
A; Residues: 6-360 <SPR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Cross-references:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  preliminary
                                                                                                                                                                                                                                                                                                                               311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       35
```

```
A;Map position: 2q35-2q35
C;Superfamily: vertebrate rhodopsin
C;Keywords: G protein-coupled receptor; transmembrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Molecule type: mRNA
A; Residues: 6-360 kMDs
A; Cross-references: GB: M73969
C; Comment: This receptor, unl:
C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R;Murphy, P.M.; Tiffany, H.L.
Science 253, 1280-1283, 1991
A;Title: Cloning of complementary DNA encoding a functional human interleukin-8 receptor A;Reference number: A39446; MUID:91368200; PMID:1891716
A;Accession: A39446
A;Status: preliminary; nucleic acid sequence not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Molecule type: mRNA
A;Residues: 1-15 <REZ-
A;Residues: 1-15 <REZ-
A;Cross-references: EMEL:U11872; NID:g511808; PIDN:AAA64380.1; PID:g511809; EMEL:U11873;
A;Cross-references: EMEL:U11877; NID:g511818; PID:g511819; EMEL:U11878; NID
11876; NID:g511816; PID:g511817; EMBL:U11877; NID:g511818; PID:g511819; EMBL:U11878; NID
R;Sprenger, H.; Lloyd, A.R.; Lautens, L.L.; Bonner, T.I.; Kelvin, D.J.
J. Biol. Chem. 269, 11065-11072, 1994
A;Title: Structure, genomic organization, and expression of the human interleukin-8 received approximation of the h
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Gene: GDB:IL8RB; IL8RA
A;Cross-references: GDB:127868; OMIM:146928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Accession: I38712
A;Status: prelimina
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       142 VDRYLAIV-----HATRTLTQKRYLVKFICLSIWGLSLLLALPVLLFRRTVYSSNVSPAC 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        95 LLFALTLPIWAASKVNGWIFGTFLC-------KVVSLLKEVNFYSGILLLACIS 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             34 EETPCYKQTLSFTG-----LTCIVSLVALTGNA-VVLWLLGCRMRRNAVSIYILNLVAAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  h 12.8%; Score 226.5; DB 2;
Similarity 26.3%; Pred. No. 1.3e-11;
82; Conservative 52; Mismatches 103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DAAPCEPESLEINKYFVVIIYALVFLLSLIGNSLVMLVILYSRVGRSVTDVYLLNLALAD 94
                                                                                                                    PIIYFFVG-SFR 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TERCLSILWPIWYHCRR----PRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWC 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FLF------LSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAIS 132
                                                                                                                                                                                                                                                                                                                                                                           VLVFLLCGLPFG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YEDMGNNTANWRMLLRILPQSFGFIVPLLIMLFCYGFTLRTLFKAHMGQKHRAMRVIFAV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -ETSDFITIAMLVFLCVV--LCGSSLVLLVRILC-GSRKMPLTRLYV-----TILLT 236
PLIYAFIGOKFR
                                                                                                                                                                                                                                                      VLIFILCWLPYNLVLLADTLMRTQVIQETCERRNHIDRALDATEI - - -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GB:M99412;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            unlike IL8RA, binds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GB:L19593
                                                                                                                                                                                                                                                                                                                                                                     -IQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSAN 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            several peptides besides interleukin-8, inc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         103;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         75;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
```

[H isotype

Navarro

```
Rytamada, Y: Post, S.R.; Wanny, K.; Tager, H.S.; Bell, G.I.; Seino, S.
Proc. Natl. Acad. Sci. U.S.A. 89, 251-255, 1992

A; Fittle: Cloning and functional characterization of a family of human and mouse somatost A; Fittle: Cloning and functional characterization of a family of human and mouse somatost A; Fittle: Daily and functional characterization of a family of human and mouse somatost A; Fittle: Daily and sequence not shown

A; Status: nucleic acid sequence not shown

A; Status: nucleic acid sequence not shown

A; Fittle: Tight acid sequence not shown

A; Fittle: Tig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Molecule type: mRNA
A;Residues: 1-358 <PRA>
A;Residues: 1-358 <PRA>
A;Cross-references: UNIPROT:P35344; GB:L24445; NID:g437661; PIDN:AAA31378.1; PID:g43766:
C;Superfamily: vertebrate rhodopsin
C;Keywords: G protein-coupled receptor; transmembrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
   문
                                           ঠ
                                                                                                                       밁
                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     140 VDRYLAIV-----HATRTMIQKRHLVKFICLSMWGVSLILSLPILLFRNAIFPPNSSPVC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25
   81
                                                        79
                                                                                                                              21
                                                                                                                                                                                       23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25 TELTPINGREETPCYKQTLSFTGLTCIVS----- LVALTGNA-VVLWLLGCRMRRNAVSI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          84;
                                                                                                                                                                                                                                                         95;
                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YLLNLAIADLLFAT----TLPIWAASKVHGWTFGTPLCKVVSLVKEVNFYSGILLLACIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        YILNLVAADFLFLSGHIICSPLRLINIRH-----PISKILSPVMTFPYFIGLSMLSAIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HSCLNPIIYAFIGQKFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NSSANPIIYFFVG-SFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IFAVVLIFLLCWLPYNL-----VLLTDTLMRTHVIQETCERRNDIDRALDATEILGFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ILLTVLVFLLCGLPFGIQWALFSRIHLDWKVLFCHVHL--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YEDMGNSTAKWRMVLRILPQTFGFILPLLVMLFCYVFTLRTLFQAHMGQKH----RAMRV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TERCLSILWPIWYHCRR----PRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TDLPP-TLLDSAPCRSESLETNSYVVLITYILVFLLSLLGNSLVMLVILYSRSTCSVTDV
   YILNLAIADBLEMLG-LPFLAMQVALVHWPFGKAICRVVMTVDGINQFTSIFCLTVMSID
                                                        YILNLVAADFLFLSGHIICSPLRLINIRHPISK-ILSPYMT---FPYFIGLSMLSAISTE 134
                                                                                                                                                                                   LGTELTPINGREET-PCYKQTLS--FTGLTCIVSLVALTGNAVVLW-LLGCRMRRNAVSI 78
                                                                                                                              LNGSLGPSNGSNQTEPYYDMTSNAVLTFIYFVVCVVGLCGNTLVIYVILRYAKMKTITNI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -ETSDFITIAWLVFLCVV--LCGSSLVLLVRILC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12.5%;
26.5%;
                                                                                                                                                                                                                                                                                    12.5%;
                                                                                                                                                                                                                                                         55;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          53; Mismatches
                                                                                                                                                                                                                                                                                       Score 219.5; DB 2; Pred. No. 5.1e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 220; DB 2;
Pred. No. 4.5e-11;
                                                                                                                                                                                                                                                      Mismatches 131;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          112; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 358
                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -GSRKMPLTRLYVT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -----VSIFLSAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          68;
                                                                                                                                                                                                                                                         55;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              78
                                                                                                                              80
B42009
FMLP-related receptor 1 - human
N,Alternate names: FMLP receptor homolog FPR2; formyl peptide receptor like-1;
C;Species: Homo sapiens (man)
C;Date: 30-Sep-1993 #sequence revision 14-Jul-1995 #text_change 09-Jul-2004
C;Accession: B42009; JC1258; JQ1521; A42492; I54751; S21581
```

```
A;Cross-references: UNIPROT:P30680; GB:M93273; NID:g207026; PIDN:AAA42165.1; A;Note: sequence extracted from NCBI backbone (NCBIN:102315, NCBIP:102316) C;Superfamily: vertebrate rhodopsin C;Keywords: G protein-coupled receptor; transmembrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Kluxen, F.W.; Bruns, C.; Lubbert, H.
Proc. Natl. Acad. Sci. U.S.A. 89, 4618-4622, 1992
A;Title: Expression cloning of a rat brain somatostatin
A;Reference number: A45291; MUID:92262491; PMID:1374909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              somatostatin receptor, somatotropin release-inhibiting factor receptor, C;Species: Rattus norvegicus (Norway rat) C;Date: 25-Mar-1993 #sequence_revision 18-Nov-1994 #text_change 09-Jul-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: mRNA
A; Residues: 1-369 < KLU>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Accession: A45291
A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                          밁
                                                                                                                                                   밁
                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                              á
                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                  S
                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Accession: A45291;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  135
307
                                                                                                                230
                                                                                                                                                       195
                                                                                                                                                                                                                                   140
                                      282
                                                                                                                                                                                                                                                                        135
                                                                                                                                                                                                                                                                                                              81
                                                                                                                                                                                                                                                                                                                                                    79
                                                                                                                                                                                                                                                                                                                                                                                           21
                                                                                                                                                                                                                                                                                                                                                                                                                               23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                               LGTELTPINGREET-PCYKQTLS--FTGLTCIVSLVALTGNAVVLW-LLGCRMRRNAVSI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INWPGESGAW--YTGFIIYAFILGFLVPLTIICLCYLFIIIKVKSSGIRVGSSKRKKSEK 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FLFSGADSVWCETSDFITIAWLVFLCV---VLCGSSLVLLVR-----ILCGSRKMPLTRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RYLAVVHPIKSAKW---RRPR-TAKMINVAVWCVSLL-VILPIMIYAGLRSNQWGRSSCT 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RCLSILWPI----WYHCRRPRYLSSVMCVLLWALSLLRSILEWMF--
ANPILYAFLSDNFKKSFONVLCLVKVSGAEDGERSD
                                      ANPITYFFVGSFRQRQNRQNLKLVLQRALQDTPEVD
                                                                            KVTRMVSIVVAVPIFCWLPFYIFNVSSVSVAISPTPAL--KGMFDFV----VILTYANSC
                                                                                                                YVT--ILLTVLVFLLCGLPF-----GIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSS 281
                                                                                                                                                         INWPGESGAW--YTGFIIYAFILGFLVPLTIICLCYLFIIIKVKSSGIRVGSSKRKKSEK
                                                                                                                                                                                           FLFSGADSVWCETSDFITIAWLVFLCV---VLCGSSLVLLVR-----ILCGSRKMPLTRL 229
                                                                                                                                                                                                                                   RYLAVVHPIKSAKW---RRPR-TAKMINVAVWGVSLL-VILPIMIYAGLRSNOWGRSSCT
                                                                                                                                                                                                                                                                  RCLSILWPI----WYHCRRPRYLSSVMCYLLWALSLLRSILEWMF------CD 177
                                                                                                                                                                                                                                                                                                              YILMLAIADELFMLG-LPFLAMQVALVHWPFGKAICRVVMTVDGINQFTSIFCLTVMSID 139
                                                                                                                                                                                                                                                                                                                                                  YILMLVAADFLFLSGHIICSPLRLINIRHPISK-ILSPVMT---FPYFIGLSMLSAISTE 134
                                                                                                                                                                                                                                                                                                                                                                                           LNGSLGPSNGSNQTEPYYDMTSNAVLTFIYFVVCVVGLCGNTLVIYVILRYAKMKTITNI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ANPILYAFLSDNFKKSFQNVLCLVKVSGTEDGERSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPEVD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KVTRMVSIVVAVPIPCWLPFYIFNVSSVSVAISPTPAL--KGMPDFV----VILTYANSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YVT--ILLTVLVFLLCGLPF-----GIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        12.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       55,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 219.5;
Pred. No. 5.1e
55; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5.1e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 2;
                                        317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              369;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         55;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SRIF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      B
                                                                                                                                                                                                                                                                                                                                                                                               80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        177
                                                                                                                                                                                                                                       194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PID: 9207027
```

probable

```
Genomics 13, 437, 440, 392
Artille: Mapping of genes for the human (56 receptor (55M), human PMLP receptor (FPN), Artille: Appling of genes for the human (56 receptor (55M), human PMLP receptor (FPN), Artille: Appling of genes and an applications of the formyl peptide receptor of Arcaesion. 842009
A. Residues: 1-65; A. 765-318, (C. 340-351 chNO)
A. Residues: 1-76; A. 785-318, (
                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13, 437-440, 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gerard, N.P.; Eddy Jr., R.L.; Shows, T.B.; Gerard,
28 TPINGREETPCYKQTLSFTGLTCIVSLVAL-----TGNAVVLWLLGCRWRRNAVSIY 79
                                                                                                                  Similarity
                                                                                   12.3%;
ilarity 25.7%;
Conservative 60
                                                                                        60;
                                                                                   Score 217; DB
Pred. No. 7.9e-
0; Mismatches
                                                                                                                                         Length 351;
                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           G
                                                                                      78;
                                                                                   Gaps
        somatostatin
```

```
밁
                                                                                                                 S
                                                                                                                                                            밁
                                                                                                                                                                                                  S
                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Cross-references: UNIPROT:P30875; EMBL:X68951; NID:g54197; PIDN:CAA48766.1; PID:g54198
C;Superfamily: vertebrate rhodopsin
C;Keywords: G protein-coupled receptor; transmembrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A,Title: Cloning and expression of a novel mouse somatostatin A;Reference number: $29248; MUID:93012001; PMID:1397330 A;Accession: $29248 A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R; Vanetti, M.; Kouba, M.; Wang, X.; Vogt, FEBS Lett. 311, 290-294, 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: mRNA
A; Residues: 1-346 < VAN>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S29248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   somatostatin receptor 2B - mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Accession: S29248;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;Species: Mus musculus (house mouse);Date: 13-Jan-1995 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
307
                                                                                                                                                              195
                                                                                                                                                                                                                                             140
                                                                                                                                                                                                                                                                                      135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              275 --- LSALNSSANPIIYFFVG-SFRQRQNRQNLKLVLQRALQD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  132
                                                                                                                                                                                                                                                                                                                               81
                                                                                                                                                                                                                                                                                                                                                                       79
                                                                                                                                                                                                                                                                                                                                                                                                                21
                                                                                                                                                                                                                                                                                                                                                                                                                                                    23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             93;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ALDRCICVLHPVMAQNHRTVSLAMKVIVGPWILALVLTLPVFLFLTTVTIPNGDTYCTFN 179
                                                                                                                                                                INWPGESGAW--YTGFIIYAFILGFLVPLTIICLCYLFIIIKVKSSGIRVGSSKRKKSEK 252
                                                                                                                                                                                                                                                                                      RCLSILWPI----WYHCRRPRYLSSVMCVLLWALSLLRSILEWMF------
                                                                                                                                                                                                                                                                                                                                                                     YILNLVAADFLFLSGHIICSPLRLINIRHPISK-ILSPVMT---FPYFIGLSMLSAISTE 134
                                                                                                                                                                                                                                                                                                                                                                                                              LNGSLGPSNGSNQTEPYYDMTSNAVLTFIYFVVCVVGLCGNTLVIYVILRYAKWKTITNI
                                                                                                                                                                                                                                                                                                                                                                                                                                                    LGTELTPINGREET-PCYKQTLS--FTGLTCIVSLVALTGNAVVLW-LLGCRMRRNAVSI 78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TSSLAFFNSCLNPMLYVFVGQDFRERL-IHSLPTSLERALSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GSRKMPLTRLYVTILLTVLV--FLLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSIF---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMF------CDFL 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        YLNLALADFSFTA----TLPFLIVSMAMGEKWPFGWFLCKLIHIVVDINLFGSVFLIGFI 119
                                      ANPITYFFVGSFRQRQNRQNLKLVLQRAL
                                                                               KVTRMVSIVVAVFIFCWLPFYIFNVSSVSVAISPTPAL--KGMFDFV----VILTYANTC 306
                                                                                                                     YVT--ILLTVLVFLLCGLPF-----GIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSS 281
                                                                                                                                                                                                     FLFSGADSVWCETSDFITIAWLVFLCV---VLCGSSLVLLVR-----ILCGSRKMPLTRL 229
                                                                                                                                                                                                                                             RYLAVVHPIKSAKW---RRPR-TAKMINVAVWCVSLL-VILPIMLYAGLRSNQWGRSSCT 194
                                                                                                                                                                                                                                                                                                                               YILNLAIADELFMLG-LPFLAMQVALVHWPFGKAICRVVMTVDGINQFTSIFCLTVMSID 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FSGADSVWCETSD---FITIAWLVFLCVV--LCGSSLVLLVRILC---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ILNLVAADFLFLSGHIICSPLRLINI----RHP----ISKILSPVMTFPYFIGLSMLSAI 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TPLNEYEEVS--YESAGYTVLR-ILPLVVLGVTFVLGVLGNGLVIWVAGFRMTRTVTTIC
ANPILYAFLS-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FAS----WGGTPEERLKVAITMLTARGIIRFVIGFSLPMSIVAICYGLIAAKIHKKGMIK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -VLTAVVASFFICWFPFQLV-ALLGTVWLKEMLFYGKYKIIDILVNP
-DNFKKSFQNVL 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             52; Mismatches 121;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 214.5; DB 2
Pred. No. 1.3e-10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   G.; Hoellt,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        346;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             receptor (SSTR2B)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               63;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                        CD 177
                                                                                                                                                                                                                                                                                                                                                                                                                80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19
```

15

receptor

```
A;Introns: #status absent
C;Superfamily: vertebrate rhodopsin
C;Superfamily: vertebrate rhodopsin
C;Keywords: G protein-coupled receptor; glycoprotein; hormone receptor; lipoprotein; phd
F;47-73/Domain: transmembrane #status predicted <TM1>
F;94-109/Domain: transmembrane #status predicted <TM2>
F;121-142/Domain: transmembrane #status predicted <TM4>
F;162-184/Domain: transmembrane #status predicted <TM5>
F;162-184/Domain: transmembrane #status predicted <TM5>
F;269-238/Domain: transmembrane #status predicted <TM7>
F;291-314/Domain: transmembrane #status predicted <TM7>
F;291-314/Doma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Molecule type: DNA
A;Residues: 1-82,'T',84-364,'K',366-388 <ROH>
A;Residues: 1-82,'T',84-364,'K',366-388 <ROH>
A;Cross-references: GB:L07833; NID:g307429; PIDN:AAA60565.1; PID:g307430
A;Mote: sequence extracted from NCBI backbone (NCBIN:130856, NCBIP:130858)
C;Comment: This protein mediates the diverse actions of the tetradecaptide somatostatin.
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Cross-references: GB:D16826; NID:g693907; PIDN:BAA04106.1; PID:g693908
R;Rohrer, L.; Raulf, F.; Bruns, C.; Buettner, R.; Hofstaedter, F.; Schule, R.
Proc. Natl. Acad. Sci. U.S.A. 90, 4196-4200, 1993
A;Title: Cloning and characterization of a fourth human somatostatin receptor.
A;Reference number: A47457; MUID:93248256; PMID:8483934
A;Accession: A47457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Cross-references: UNIPROT:P31391; GB:L14856; NID:g292499; PIDN:AAA36623.1; PID:g292500 R;Yamadda, Y.; Kagimoto, S.; Kubota, A.; Yasudda, K.; Masuda, K.; Someya, Y.; Ihara, Y.; I Biochem. Biophys. Res. Commun. 195, 844-852, 1993
A;Title: Cloning, functional expression and pharmacological characterization of a fourth A;Reference number: JN0762; MUID:93384611; PMID:8373420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Cross-references: GDB:202662; OMIM:182454
A;Map position: 20p11.2-20p11.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Accession: JN0605
A;Molecule type: DNA
A;Residues: 1-388 <XUY>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C;Species: Homo sapiens (man)
C;Darce: 30-Sep-1993 #sequence revision 30-Sep-1993 #text_change 09-Jul-2004
C;Accession: JN6605; JN0762; Ā47457
R;Xu, Y:; Song, J:; Bruno, J:F:; Berelowitz, M.
Biochem. Biophys. Res. Commun. 193, 648-652, 1993
Biochem. Biophys. Res. Commun. 193, 648-652, 1993
A;Title: Molecular cloning and sequencing of a human somatostatin receptor, hSSTR4.
A;Reference number: JN0605; MUID:93290656; PMID:8512564
                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Gene: GDB: SSTR4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                뭕
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Accession: JN0762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Molecule type: DNA
Residues: 1-388 <YAM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              118 LCRAVLSVDGLNMFTSVFCLTVLSVDRYVAVVHPLRAATYRRPSVAKLINLGVMLASLLV 177
270 LVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPEVDEGGGWLPQETLE 329
                                                                                                           238 MRAVALRAGWQQRRRSEKKITRLVLMVVVVFVLCWMPFYV----VQLLNLVVTSLDATVN 293
                                                                                                                                                                                                                       210 SLVLLVRILCGSRKMPLTRLYVTILLTVLVPLLCGLPPGIQWALFSRIHLDWKVLFCHVH 269
                                                                                                                                                                                                                                                                                                                                  178 TLPIAIFADTRPARGGQAVACNLQWPHPAWSAVFVVYTFLLGFLLPVLAIGLCYLLIVGK 237
                                                                                                                                                                                                                                                                                                                                                                                                                                        169 SILEWMFCDFL-FSGADSVWCB-----TSDFITIAWLV----FLCVVLC----GS 209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          113 LS----PVMTFPYFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLR 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 GLVGNALVIEVILRYAKMKTATNIYLLNLAVADELFMLSVPFVASSAAL---RHWPFGSV 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           56 ALTGNAVVLW-LLGCRMRRNAVSIYILNLVAADFLF-LSGHIICSPLRLINIRH-PISKI 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14 LSMDSTIPVLGTB-----VSLV 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MŚAPŚTLPPGGEEGLGTAWPSAANASSAPAEAEEAVAGPGDARAAGMVAIQCIYALVCLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           h 12.2%; Score 214.5; DB 2; Length 388; Similarity 25.9%; Pred. No. 1.4e-10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61; Mismatches 152; Indels 59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14
```

```
Db 294 HVSLILSYANSCANPILYGFLS-----DNFRRSFQRVLCLRCCLLEGAGGAEEEPLD 345

Qy 330 LSGSRLE 336

Character in the control of the cont
```

Search completed: October 27, Job time: 40 secs

2004, 08:35:03

This Page Blank (uspto)

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence:
     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
   739.5
729
722.5
713
703
691.5
682.5
680.5
680.5
689.5
                                                                                                                                                                                                                                                                                                                      1606
1411
1383
1382
1367
989.5
989.5
823.5
823.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   seq length: 0
seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-867-570-2
1763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       October 27, 2004, 08:24:12; Search time 190 Seconds (without alignments) 1020.533 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                UniProt_02:*
1: uniprot_sprot:*
2: uniprot_trembl:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1825181 seqs, 575374646 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MESKSSWVIRLGFLSMDSTI......EGGGWLPQETLELSGSRLEQ 337
                                                                   GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
   BB
 Q7TN45
MGA2_MOUSE
MGA5_MOUSE
Q91ZB9
MGA8_MOUSE
Q7TN47
                                                                                                MGA4_MOUSE
AAH64040
                                                                                                                                                                   Q8CDY4
Q91ZC2
MGA1_MOUSE
Q7TN48
MGA6_MOUSE
MGA3_MOUSE
MGA7_MOUSE
                                                                                                                                                                                                                                                                                   MRG3 HUMAN
AAH67292
SNS2 HUMAN
SNS3 HUMAN
SNS5 HUMAN
SNS5 HUMAN
MRG4 HUMAN
MRG4 HUMAN
MRG5 HUMAN
MRG6 HUMAN
AAH63450
Q7TN42
SNS1 RAT
Q6C1P3
MRGA RAT
Q91YB7
                                                                                                                                   Q91ZC0
Q91ZC3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ü
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1825181
0961b0 homo sapien Aah6792 homo sapien OBtde0 homo sapien OBtde1 homo sapien OBtde2 homo sapien OBtde3 homo sapien OBtde3 homo sapien OBtde3 homo sapien OBtde4 homo sapien OBtde4 homo sapien OBtde4 rattus norv OBripa mus musculu O7tn49 rattus norv OBtde4 mus musculu O7tn48 rattus norv OBTCC4 mus musculu O7tn48 rattus norv OBTCC5 mus musculu O7tn48 rattus norv OBTCC5 mus musculu O7tn48 rattus norv OBTCC5 mus musculu O7tn48 rattus norv OBTCC6 mus musculu OFTCC6 mus musculu OFTCC6 mus musculu OFTCC7 muscu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Description
```

35 578.5 32.8 36 576.5 32.7 37 568.5 32.7 38 541.5 30.7 49 541.5 30.7 49 541.5 30.7 41 506 28.7 41 506 28.7 41 506 28.7 42 506 28.7 42 503 28.5 44 503 28.5 44 503 28.5 44 503 28.5 44 503 28.5 44 503 28.5 45 503 28.5 46 503 28.5 47 606.60; Q8TDE1; DT 01-CCT-2004 (Rel.) DT 01-CCT-2004 (R	
	3 2 2
578.5 578.5	626.5 617.5
35 578.5 32.8 245.2 36 576.5 32.7 247.2 37 568.5 32.7 247.2 38 541.5 30.7 320 1 40 506 28.7 321 2 41 506 28.7 321 2 42 506 28.7 321 2 43 503 28.5 310 2 44 503 28.5 310 2 44 503 28.5 310 2 45 503 28.5 310 2 46 503 28.5 310 2 47 504 (Rel. 45, Crea ol-CCT-2004 (Rel. 45, Last ol-CCT-2004 (Rel.	
et ac. Y prodes neithe 120 of a 250.555 D 333333333333333333333333333333333	
Q7TN44 Q7TN44 Q7TN44 Q7TN91 MRGD P MRGD P AAR051 MRGD P AAR051 MRGD P AAR051 AAR051 AAR051 PRT; PRT; PRT; PRT; PRT; PRT; PRT; PASN-16 Bonaldc Cts act Cts act Ville I AAR051 AAR051 AAR051 AAR051 AAR051 AAR051 PEterst CACB62 AAR051 AAR063 AAR	Q7TN44 Q91ZC1
NMENTS NM	
A. A	
	၁ဝဝ
O B . a. chilho. O O B Ya B O B 279617661636 B . Gh. loade. Yay O O Yam C U 502 4	7tn44 ra 91zc1 mu
T.B. C	ttus norv

```
Query Match
Best Local Similarity
Matches 322; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                CONFLICT
CONFLICT
CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE; PS00237; G PROTEIN RECEP F1 1; 1.

PROSITE; PS50262; G PROTEIN RECEP F1 2; 1.

G-protein coupled receptor; Polymorphism; Transmembrane.

DOMAIN 1 31 Extracellular (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   InterPro; IPR000276; GPCR_Rhodpsn. Pfam; PF00001; 7tm 1; 1. PRINTS; PR00237; GFCREHODOPSN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; AY042215; AAK91806.1; -. EMBL; AF474987; AAL86878.2; -. EMBL; BC067292; AAH67292.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       use by non-profit institutions as long as modified and this statement is not removed. I entities requires a license agreement (see htt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a collaboratic between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on it
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Proc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MIM; 607229;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FUNCTION: Orphan receptor. Probably involved in the function of nociceptive neurons. May regulate nociceptor function and/or development, including the sensation or modulation of pain. Potently activated by enkephalins (By similarity). SUBCELLULAR LOCATION: Integral membrane protein. TISSUE SPECIFICITY: Uniquely localized in a subset of small dorsal root and trigeminal sensory neurons.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  root and trigeminal sensory neurons.
SIMILARITY: Belongs to family 1 of G-protein coupled receptors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mas subfamily.
                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                         61
                                                                                                                                                                                                                            76
                                                                                                                                                                                                                                                                                                      16
                                                        IAWLVFLCVVLCGSSLVLLVRILCGSRKWPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                               CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                      CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                       VSIYILMLVAADFLFLSGHIICSFLRLINIRHPISKILSFVMTFFYFIGLSMLSAISTER
                                                                                                                                                                                                             VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                     MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPB
                                     IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                    322 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
82
307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               132
53
61
82
97
118
118
1178
1178
1199
1199
2114
2314
2314
2316
276
                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   52
60
81
96
117
                                                                                                                                                                                                                                                                                                                                95.7%; but
100.0%; Pre
                                                                                                                                                                                                                                                                                                                                                                                                                  36484 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                  D -> N (in dbSNP:4274

/FTId=VAR 0.19434.

S -> P (in Ref. 2).

C -> R (in Ref. 3).

W -> Q (in Ref. 3).

R -> K (in Ref. 2).
                                                                                                                                                                                                                                                                                                                                                       Score 1688; DB 1; I
Pred. No. 1.2e-115;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Extracellular (Potential).
5 (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Extracellular (Potential)
3 (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Extracellular (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cytoplasmic (
4 (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cytoplasmic (Potential).
D -> N (in dbSNP:4274188).
                                                                                                                                                                                                                                                                                                                                                                                                              -> R (in Ref. 3).
-> Q (in Ref. 3).
-> K (in Ref. 2).
253B1BEF0CB4EB74 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (Potential)
                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         oved. Usage by and for commercial (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              There are no restrictions 
ong as its content is in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (Potential).
                                                                                                                                                                                                                                                                                                                                          0,
                                                                                                                                                                                                                                                                                                                                                                           Length 322;
                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                          <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   collaboration
                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                            135
                                                                                                                                                    195
                                                                                                                 180
                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                 60
   315
                                       240
                                                                          255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              way
                                                                                                                                                                                                                                                                                                                                          0
```

**경** 유

음 성

음 성 음 성

Ś

```
RESULT 2
AAH67292
                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DUT

OG GNU

O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                            5
                                                                                                                          밁
                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=2238257; PubMed=12477932;

W. MEDLINE=2238257; PubMed=12477932;

A Strausberg R.L., Feingold B.A., Grouse L.H., Derge J.G.,

Klausmer R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,

A Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

A Brownstein M.J., U8din T.B., Toshiyuki S., Carninci P., Prange C.,

Brownstein M.J., U8din T.B., Toshiyuki S., Carninci P., Prange C.,

A Brownstein M.J., U8din T.B., Toshiyuki S., Carninci P., Prange C.,

A Raha S.S., Loquellano N.A., Peters G.J., Malek J.A., Gunaratne P.H.,

A Richards S., McDwan P.J., McKernan K.J., Malek J.A., Gay L.J., Hulyk S.W.,

Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

A Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,

A Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,

A Jones S.J., Marra M.A.;

Jones S.J. Marra M.A.;

Jones S.J. Marra M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Receptor.
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAH67292
AAH67292;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MRGX3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-MAR-2004 (TrEMBLrel. 27, 25-MAR-2004 (TrEMBLrel. 27, 25-MAR-2004 (TrEMBLrel. 27,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; BC067292; AAH67292.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (MAR-2004) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Strausberg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE=Testis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE=Test:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Generation and initial analysis of more than 15,000 full-length humar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ones S.J., Marra M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein-coupled receptor MRGX3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                316
181
                                                         196
                                                                                                                          121
                                                                                                                                                                                       136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      320;
                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                      16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                             VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                          MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
                              IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                               CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VDEGGGWLPQETLELSGSRLEQ
                                                                                                                          CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                           VSIYILNLVAADFLFLSGHIIRSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                        MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VDEGGGWLPQETLELSGSRLEQ 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    322 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       36479 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     94.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Last sequence up
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 1663; DB 2;
Pred. No. 7.9e-114;
0; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99:16899-16903 (2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       B91DC082B6D95DA8 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 2; Length 322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
FS
                                                                                                                                                                                              195
                                                             255
                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                         75
240
                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SNS2_HUMAN
Q8TDE0;
TRANSMEM
DOMAIN
TRANSMEM
DOMAIN
                                                           DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
                                                                                                             DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                           G-protein
DOMAIN
                                                                                                                                                                                                                                                                                                    This SWISS-PROT entry is copyright. It is produced through a celebrate the Swiss Institute of Bioinformatics and the ENRIL the European Bioinformatics Institute. There are no restrict use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and fo entities requires a license agreement (See http://www.isb-sib.
                                                                                                                                                                                                  PRINTS; PR00237; GECRRHODOPSN.
PROSITE; PS00237; GEROTEIN_RECEP_F1
PROSITE; PS50262; GEROTEIN_RECEP_F1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gosselin M., Fortin Y., Banville D., Shen S., Dray A., Walker P., Ahmad S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=21853733; PubMed=11850634; DOI=10.1038/nn815; Lembo P.M.C., Grazzini E., Groblewski T., O'Donnell D., Zhang J., Hoffert C., Cao J., Schmidt R., Pelletier M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-OCT-2004 (Rel. 45, Last sequence update)
01-OCT-2004 (Rel. 45, Last annotation update)
Sensory neuron-specific G-protein coupled receptor
                                                                                                                                                                                                                                                                   EMBL; AF474988; AAL86879.2;
                                                                                                                                                                                                                                                                                           or send
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Name=SNSR2;
Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-OCT-2004
                                                DOMAIN
                                                                                                                                                                  TRANSMEM
                                                                                                                                                                                                                                                        InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          neuron-specific GPCRs."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Proenkephalin A gene products activate a new
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                                                                                                                          nociceptive neurons. May regulate nociceptor function development, including the sensation or modulation of potently activated by enkephalins (By similarity). SUBCELLULAR LOCATION: Integral membrane protein. TISSUE SPECIFICITY: Uniquely localized in a subset of root and trigeninal sensory neurons.

SIMILARITY: Belongs to family 1 of G-protein counled results.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Neurosci. 5:201-209(2002).
FUNCTION: Orphan receptor. Probably involved
                                                                                                                                                                                                                                                                                                                                                                                                Mas subfamily.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              256
                                                                                                                                                                                                                                          PF00001; 7tm_1; 1
                                                                                                                                                                                                                                                                                            an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VDEGGGQLPQETLELSGSRLEQ 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RIHLDWKVLFCHVHLVSIFLSALNSSANFIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                         coupled
                                                                                                                                                                                                                                                      IPR000276; GPCR_Rhodpsn.
                                                                                     33
54
61
82
97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                          igeminal sensory neurons.
Belongs to family 1 of G-protein coupled receptors
receptor,
32
53
60
61
81
96
117
1140
1140
1140
1198
1198
2134
2134
2134
2134
2134
2135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AND TISSUE SPECIFICITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Created)
                                                                                                                                                                                                     RECEP_F1_1;
                                                                                                                                                                           Transmembrane.
Extracellular (Potential).
                                                            Extracellular (Potential)
5 (Potential)
                                                                                                                                         Cytoplasmic
2 (Potentia
              Extracellular (Potential)
7 (Potential).
                                                                                         Cytoplasmic 4 (Potentia:
                                                                                                                           Extracellular (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                      (Potential)
                                                                                                               (Potential)
                                                                                                                                        (Potential).
                                                                                                                                                                 (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ጅ
                                                                                                   (Potential).
                                                                                                                                                     (Potential).
                                                (Potential).
  (Potential)
                                                                                                                                                                                                                                                                                                      . Usage by and for commercial http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Stroem P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       family of sensory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  in the
                                                                                                                                                                                                                                                                                                                                              restrictions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ion and/or of pain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Roy M.-C
Labarre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  function
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Payza
                                                                                                                                                                                                                                                                                                                                                                                                                                     small dorsal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       y M.-O.,
                                                                                                                                                                                                                                                                                                                     for
                                                                                                                                                                                                                                                                                                                                                           collaboration
                                                                                                                                                                                                                                                                                                                                 Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ζ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    o
E
                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               315
```

```
RESULT

SNS_HU

ID S_HU

ID S_N

AC Q8

DT 011

DT 011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SPT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        뭉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
SEQUENCE -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (1)
SEQUENCE FROM N.A., AND TISSUE SPECIFICITY.
SEQUENCE FROM N.A., AND TISSUE SPECIFICITY.
MEDLINE=21853733; PubMed=11850634; DOI=10.1038/nn815;
Lembo P.M.C., Grazzini E., Groblewski T., O'Donnell D., F
Lembo P.M.C., Grazzini E., Groblewski T., Pelletier M., I
Zhang J., Hoffert C., Cao J., Schmidt R., Pelletier M., I
Zhang J., Hoffert C., Banville D., Shen S., Stroem P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OSTDD9;
01-OCT-2004 (Rel. 45, Created)
01-OCT-2004 (Rel. 45, Last sequence update)
01-OCT-2004 (Rel. 45, Last annotation update)
Sensory neuron-specific G-protein coupled rec
                                                                                                                                                                                                                                                                                                                                                                                                   "Proenkephalin A gene products activate a new family of sensory neuron-specific GPCRs.";
Nat. Neurosci. 5:201-209 (2002).
-i- PUNCTION: Orphan receptor. Probably involved in the function nociceptive neurons. May regulate nociceptor function and/or development, including the sensation or modulation of pain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Zhang J., Hoffert C., Cao J., Sch
Gosselin M., Fortin Y., Banville
Dray A., Walker P., Ahmad S.;
                         This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EW the European Bioinformatics Institute. There are no restr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SNS3 HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens (Human).
                                                                                                                                                                                        Potently activated by enkephalins including BAM22 (bovine adrenal medulla peptide 22) and BAM (8-22). BAM22 is the most potent compound and evoked a large and dose-dependent release of intracellular calcium in stably transfected cells. G(alpha)q proteins are involved in the calcium-signaling pathway. SUBCELLULAR LOCATION: Integral membrane protein. TISSUE SPECIFICITY: Uniquely localized in a subset of small dorsal root and trigeminal sensory neurons.
                                                                                                                                                              root and trigeminal SIMILARITY: Belongs
                                                                                                                                       Mas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  309;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                       subfamily.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IAMLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VSIYILNLVAADFLFLSGHIICSFLRLINIRHFISKILSFVMTFFYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFMGSFRQLQNRKTLKLVLQRDLQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLSILWPIWYHCRRPRYLSSVMCVLLWAPSLLRSILEWMFCDFLFSGADSVRCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VSIYILNLVAADFLFLSGHIICSPLRLINISHPISKILSPVMTFPYFIGLSMLNAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MDPTVPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VDEGGWWLPQETLELSGSRLEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VDEGGGWLPQETLELSGSRLEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IAMLVFLRVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           89
322 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD;
                                                                                                                                                                 igeminal sensory neurons.
Belongs to family 1 of G-protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             36594 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         91.1%;
96.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-linked (GlcNAc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             D8C24308E3B4611B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1606;
No. 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 1;
..2e-109;
hes 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .) (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                    coupled receptors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Labarre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Roy M. -0.,
                                                                                    a collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ဇ္
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
```

ween the Swiss Institute of Bioinf European Bioinformatics Institute. by non-profit institutions as 1

long

restrictions

8 8

EMBL outstation

and this statement is not removed.

and for commercial

```
В
                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local S
Matches 272
                                  Q96LB2; Q8TDD8;
Q1-OCT-2004 (Rel. 45, Created)
O1-OCT-2004 (Rel. 45, Last sequence update)
O1-OCT-2004 (Rel. 45, Last annotation update)
O1-OCT-2004 (Rel. 45, Last annotation update)
Mas-related G-protein coupled receptor member specific G-protein coupled receptor 4).
Name=MRGX1; Synonyms=SNSR4;
Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                         HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
TRANSMEM
Eukaryota; Metazoa; Chordata;
Mammalla; Eutheria; Primates;
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS00237; G PROTEIN RECEP F1 1; 1.

PROSITE; PS50262; G PROTEIN RECEP F1 2; 1.

PROSITE; PS50262; G PROTEIN RECEP F1 2; 1.

G-protein coupled receptor; Glycoprotein; Transmembrane.

DOMAIN 1 31 Extracellular (Potential).
                                                                                                                              MRG1_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRINTS; PR00237; GPCRRHODOPSN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   InterPro; IPR000276; GPCR_Rhodpsn.
Pfam; PF00001; 7tm_1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; AF474989; AAL86880.2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             send
                                                                                                                                                                                   301
                                                                                                                                                                                                       316
                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                            196
                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                     136
                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                               76
                                                                                                                                                                                                                                                                                                                                                                                                                        16
                                                                                                                                                                                                                                                                                                                                                                                                     _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             s requires a license agreement (S an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                  ||:| :|||||
                                                                                                                                                                                                                                                  RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                      IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                             CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                          FSIYILNLAAADFLFLSGRLIYSLLSFISIPHTISKILYPVMMFSYFAGLSFLSAVSTER
                                                                                                                                                                                                                                                                                                                                                                      VSIYILNLVAADFLFLSGHIICSFLRLINIRHPISKILSFVMTFFYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                   MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                 CLSVLWPIWYRCHRPTHLSAVVCVLLWALSLLRSILEWMLCGFLFSGADSAWCQTSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                     MDPTVSTLDTELTPINGTEETLCYKQTLSLTVLTCIVSLVGLTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16
322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           32
68
89
114
114
1178
1178
1178
1178
1178
1178
                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                              STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  31
52
67
111
144
165
177
177
198
275
275
275
166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       36287
                                                                                                                                                                                                                                                                                                                                                                                                                                                        80.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                              16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cytoplasmic (Potential).

2 (Potential).

2 (Potential).

Extracellular (Potential).

3 (Potential).

Cytoplasmic (Potential).

4 (Potential)

Extracellular (Potential).

5 (Potential).

5 (Potential).

Cytoplasmic (Potential).

6 (Potential).

Extracellular (Potential).

7 (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       is not removed. Usage by and for commercial agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cytoplasmic (Potential).
N-linked (GlcNAc. . .) (P.
4C43E33E52DCBFF5 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 1411; DB 1;
Pred. No. 2.2e-95;
6; Mismatches 34;
                      Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                       337
                                                                                                                                                                                   322
                                                                                                                              322
                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (Potential).
(Potential).
                                                                          ŭ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 322;
                                                                          (Sensory
                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                              0,
                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                  315
                                                                                                                                                                                                                                                                                            255
                                                                                                                                                                                                                                                                                                                                      195
                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                135
                                                                                                                                                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                              0
```

```
InterPro; leave:
InterPro; leave:
Pfam; PF00001; 7tm 1; 1.
Pfam; PF00001; 7tm 1; 1.
PRINTS; PR00237; GFCRHODOPSN.
PROSITE; PS00237; GPCOTEIN_RECEP_F1_1; 1.
PROSITE; PS50262; G_PROTEIN_RECEP_R1_2; 1.
PROSITE; PS60262; G_PROTEIN_RECEP_R1_2; T.
PROSITE; PS60262; G_PROTEIN_RECEP_R1_2; T
                                                                 DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A., AND TISSUE SECURIAL SEQUENCE FROM N.A., AND TISSUE SECURIAL SECU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the European Bioinformatics Institute. There are no restrictions on use by non-profit institutions as long as its content is in no modified and this statement is not removed. Usage by and for commen
      DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; AY042213; AAK91804.1; -.
EMBL; A4747999; AAL68881.1; -.
EMBL; AB083628; BAB89341.1; -.
EMBL; AB065846; BAC06064.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.

MEDLINE=21435808; PubMed=11551509;

MEDLINE=21435808; PubMed=11551509;

Dong X., Han S.-K., Zylka M.J., Simon M.I., Ander

Dong X., Han S.-K., Zylka M.J., Simon M.I., Ander

"A diverse family of GPCRs expressed in specific

nociceptive sensory neurons.";

Cell 106:619-632(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (JUL-2001) to the EMBL/GenBank/DDBJ -!- FUNCTION: Orphan receptor. Probably involv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Takeda S., Kadowaki S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Proenkephalin A gene products activate a neuron-specific GPCRs.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Zhang J., Hoffert C., Cao J., Schmidt R., Gosselin M., Fortin Y., Banville D., Shen Dray A., Walker P., Ahmad S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       receptor genes."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Suwa M., Sato T., Okouchi I., Arita M., Futami K.,
Tsutsumi S., Aburatani H., Asai K., Akiyama Y.;
"Genome-wide discovery and analysis of human seven
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. Suwa M., Sato T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=22040266;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Nat. Neurosci. 5:201-209(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEBS Lett. 520:97-101(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FUNCTION: Orphan receptor. Probably involved in the function of nociceptive neurons. May regulate nociceptor function and/or development, including the sensation or modulation of pain. Potently activated by enkephalins including BAM22 (bovine adrenal medulla peptide 22) and BAM (8-22). BAM22 is the most potent compound and evoked a large and dose-dependent release of intracellular calcium in stably transfected cells. G(alpha)q proteins are involved in the calcium-signaling pathway. SUBCELULAR LOCATION: Integral membrane protein.

TISSUE SPECIFICITY: Uniquely localized in a subset of small dorsal root and trigeminal sensory neurons.

SIMILARITY: Belongs to family 1 of G-protein coupled receptors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mas subfamily.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    607227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sequence."
      1
32
53
68
89
97
118
145
166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PubMed=12044878;
ki S., Haga T., Taka
f G protein-coupled
      31
52
67
88
96
117
144
165
198
Cytoplasmic (Po
2 (Potential).
Extracellular (
3 (Potential).
Cytoplasmic (Po
4 (Potential).
Extracellular (
5 (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Takaesu H., Mitaku
pled receptor genes
                                                                                                       (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
;
                                     (Potential)
                                                                                                                                                                     (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Anderson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a subset of small dorsal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            family
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Stroem
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                subsets
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         transmembrane helix
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mateumoto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S.;
from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ۳.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            of sensory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Roy M.-O.,
Labarre M.
                                                                                                                                                                                                                                                                                                                                          Transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Payza K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                commercia.
```

EMBL outstation

collaboration -

```
RESULT 6
SNS5_HUMAN
                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                    र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ई
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
               SNS5 HUMAN
QBTDD7;
01-OCT-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                  01-OCT-2004 (Rel. 45, Created)
01-OCT-2004 (Rel. 45, Last sequence update)
01-OCT-2004 (Rel. 45, Last annotation update)
Sensory neuron-specific G-protein coupled receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                            SEQUENCE FROM N.A., AND TISSUE SPECIFICITY.

MEDILINE=2185373; PubMed=11850634; DOI=10.1038/nn815;

Lembo P.M.C., Grazzini E., Groblewski T., O'Donnell D.,

Zhang J., Hoffert C., Cao J., Schmidt R., Pelletier M.,

Gosselin M., Fortin Y., Banville D., Shen S., Stroem P.,

Dray A., Walker P., Ahmad S.;
                                                                                                                                                                                                             Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                  NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VARIANT
                                                                                                                                                                                                                                 Homo sapiens (Human)
                                                                                                                                                                                                                                         Name=SNSR5;
                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                          316
                                                                                                                                                                                                                                                                                                                                                                                                                                                          196
                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  136
                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    269;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16
         subfamily
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRWRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VSIYILNLVAADPLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                WIHVDREVLECHVHLVSIFLSALNSSANFIIYFFVGSFRQRQNRQNLKLVLQRALQDASE
                                                                                                                                                                                                                                                                                                                                                                                                        RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSBRQRQNRQNLKLVLQRALQDTPB
                                                                                                                                                                                                                                                                                                                                                                                                                                               IAMLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLSILMPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                        VDEGGGQLPEEILELSGSRLEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                      VAWLIFICVVLCGSSLVLLIRILCGSRKIPLTRLYVTILLTVLVFLLCGLPFGIQFFLFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLSVLWPIWYRCHRPTHLSAVVCVLLWALSLLRSILEWMLCGFLFSGADSAWCQTSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FSIYILNLAAADFLFLSGRLIYSLLSFISIPHTISKILYPVMMFSYFAGLSFLSAVSTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MDPTISTLDTELTPINGTEETLCYKQTLSLTVLTCIVSLVGLTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       199
222
243
255
276
16
36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A,
                                                                                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       221
242
254
275
322
36
                                                                                                                                                                                                              Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
36250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             78.4%;
83.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ¥.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 1383; DB 1;
Pred. No. 2.4e-93;
6; Mismatches 37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cytoplasmic (Potential).
N-linked (GlcNAc...) (Po
I -> V (in dbSNP:11024885)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cytoplasmic (Potential).
6 (Potential).
Extracellular (Potential)
7 (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /FTId=VAR_019432
I -> V (in Ref. :
                                                                                                                                                                                                            Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C7F3A9F4418E8AD1 CRC64;
                                                                                                                                                                                                                                                                                                                                                        322
                                                                                                                                                                                                                                                                                                       322
                                                                                                                                                                                                                                                                                                       B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    37; Indels
                                        subset of
                                                                   function of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                 coupled receptors
                                                                                                                                                                                                                                                     'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (Potential)
                                                                                                                                      ₽.,
                                                                                                                     얁
                                                                                                                                       Labarre
, Payza k
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        322;
                                                                                        function
                                                                                                                     sensory
                                                                                                                                                            Roy M. -0.,
                                                                   and/or pain.
                                        small dorsal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                   .
:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                        of
E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  195
                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                   315
                                                                                                                                                                                                                                                                                                                                                                                                                                                          255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
```

```
RESULT
MRG4_HU
DI MR
AC Q9
DT 01
DT 01
DT 01
DT 01
DT 01
NR
OR MA
DE SP
GN NA
OS HO
                                                                                                                                                                               S
                                                                                                                                                                                                           밁
                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TRANSMEM DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collab between the Swiss Institute of Bioinformatics and the EMBL outset the Buropean Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for comenties requires a license agreement (See http://www.isb-sib.ch/arentities requires a license agreement (See http://www.isb-sib.ch/arentities.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   G-protein coupled DOMAIN 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRINTS; PR00237; GPCRRHODOPSN.

PROSITE; PS00237; G PROTEIN_RECEP_F1_1;
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pfam; PF00001; 7tm_1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; AF474991; AAL86882.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             InterPro; IPR000276; GPCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local
                                                                                                                                                              301
                                                                                                                                                                                     316
                                                                                                                                                                                                             241
                                                                                                                                                                                                                                     256
                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                     196
                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                       136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 268;
                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                        16
                                                                                                                                                                                                                                                                                                                                                                                       76
                                                                                                                                                                                                                                                                                                                                                                                                                \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                              VSIYILNLVAADFLFLSGHIICSFLRLINIRHFISKILSFVMTFFYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                              MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                             RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPB
                                                                                                                                                                                                                                                                                                               CLSVLWPIWYRCRRPTHLSAVVCVLLWGLSLLFSMLEWRFCDFLFSGADSSWCETSDFIF
                                                                                                                                                              VDKGEGQLPEESLELSGRRL
                                                                                                                                                                            VDEGGGWLPQETLELSGSRL
                                                                                                                                                                                                                                                                                                                                       CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 195
                                                                                                                                                                                                                                                                                                                                                                VSIYILNLAAADFLFLSFQIIRSPLRLINISHLIRKILVSVMTFPYFTGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                MDPTVPVLGTKLTPINGREETPCYKQTLSFTVLTCIISLVGLTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        32
53
61
61
118
118
118
119
119
219
219
219
219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ed receptor: Transmembrane.

31 Extracellular (Potential).

52 1 (Potential).

60 Cytoplasmic (Potential).

81 2 (Potential).

96 Extracellular (Potential).

117 3 (Potential).

118 4 (Potential).

158 4 (Potential).

158 5 (Potential).

218 Cytoplasmic (Potential).

218 Cytoplasmic (Potential).

218 Cytoplasmic (Potential).

219 5 (Potential).

210 6 (Potential).

221 Cytoplasmic (Potential).

222 Cytoplasmic (Potential).

233 6 (Potential).

234 Extracellular (Potential).

235 Oytoplasmic (Potential).

254 Extracellular (Potential).

275 7 (Potential).

275 Oytoplasmic (Potential).

276 Oytoplasmic (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              78.4%;
83.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  36423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           . 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ₹
:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rhodpsn.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No. 2.9e
); Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 1382;
Pred. No. 2
                                                                                                                                                                                                                                                                                                                         · 🗄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -linked (GlcNAc. . .) (P
3D6FFB4B5DDFDD90 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .9e-93;
ев 32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 8
                                                                                                                                                                                                                                                                                                                                                                                        135
                                                                                                                                                                                                               300
                                                                                                                                                                                                                                        315
                                                                                                                                                                                                                                                                                                                                                                                                                  60
                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
```

MRG4 HUMAN STANDARD; PRT; 322 AA. Q95LA9; Q8TDD6; O1-OCT-2004 (Rel. 45, Created) O1-OCT-2004 (Rel. 45, Last sequence update) O1-OCT-2004 (Rel. 45, Last annotation update) Mas-related G-protein coupled receptor member specific G-protein coupled receptor 6). Name=MRGX4; Synonyms=SNSR6;

×4

(Sensory

neuron-

HUMAN

```
InterPro; IPKUUVIII, 1.
Pfam; PF00001; 7tm 1; 1.
PFAm; PF00001; 7tm 1; 1.
PRINTS; PR00237; G PROTEIN RECEP F1 1; 1.
PROSITE; PS00237; G PROTEIN RECEP F1 2; 1.
PROSITE; PS50262; G PROTEIN RECEP F1 2; 1.
PROSITE; PS50263; G PROTEIN RECEP F1 2; 1.
PROSITE; PS50263; G PROTEIN RECEP F1 2; 1.
PROSITE; PS50263; G PROTEIN RECEP F1 1; 1.
PROSITE; PS50263; G PROTEIN RECEP F1 2; 1.
PROSITE; PS50263; G PROTEIN RECEP F1 1; 1.
PROSITE; PS50263; G PROTEIN RECEP F1 2; 1.
PROSITE; PS50263; G PROTEIN RECEP F1 2
                                                                                                                                                                                                                                                                                                                  DOMAIN
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A., AND TISSUE SPECIFICITY.

MEDLINE-21853733; PubMed=11850634; DOI=10.1038/nn815;

Lembo P.M.C., Grazzini E., Groblewski T., O'Donnell D., Roy M.-O.,

Zhang J., Hoffert C., Cao J., Schmidt R., Pelletier M., Labarre M.,

Gosselin M., Fortin Y., Banville D., Shen S., Stroem P., Payza K.,

Dray A., Walker P., Ahmad S.;

"Proenkephalin A gene products activate a new family of sensory

neuron-specific GPCRS.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MIM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; AY042216; AAK91807.1; -. EMBL; AF474992; AAL86883.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entities requires a license agreement (Some send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              modified and this statement
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=21435808; PubMed=11551509;
Dong X., Han S.-K., Zylka M.J., Simon
"A diverse family of GPCRs expressed:
                                           CONFLICT
                                                                                                       VARIANT
                                                                                                                                                                                                                             VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                  VARIANT
                                                                                                                                                                                                                                                                                         VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                         TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cell 106:619-632(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      nociceptive sensory neurons.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FUNCTION: Orphan receptor. Probably involved in the function of nociceptive neurons. May regulate nociceptor function and/or development, including the sensation or modulation of pain. Potently activated by enkephalins (By similarity). SUBCELLULAR LOCATION: Integral membrane protein.

TISSUE SPECIFICITY: Uniquely localized in a subset of small dorsal root and trigeminal sensory neurons.

SIMILARITY: Belongs to family 1 of G-protein coupled receptors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       s SWISS-PROT entry is copyright. It is produced through a collat ween the Swiss Institute of Bioinformatics and the EMBL outst Buropean Bioinformatics Institute. There are no restrictions by non-profit institutions as long as its content is in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mas subfamily.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            607230;
                                                                                                                                                                                                                                                                                         276
276
276
89
                                              182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     32
53
61
82
97
118
138
138
159
178
199
                                                                                                       83
                                                                                                                                                               ņ
                                                                                                                                                                                                                          25
                                                                                                                                                                                                                                                                                   31
52
60
81
117
1137
1158
1177
1218
2218
2318
2322
3222
89
                                                                                                       83
                                                                                                                                                               54
                                                                                                                                                                                                                       25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               institutions as long as its content is in no way atement is not removed. Usage by and for commercial license agreement (See http://www.isb-sib.ch/announce/
(Potential).

Cytoplasmic (Potential).

2 (Potential).

Extracellular (Potential).

3 (Potential).

Cytoplasmic (Potential).

4 (Potential).

Extracellular (Potential).

5 (Potential).

5 (Potential).

Cytoplasmic (Potential).

6 (Potential).

Cytoplasmic (Potential).

7 (Potential).
                                                                                                                                                            /FTId=VAR 019436.
Y -> C (in dbSNP:1869788)
                                                                                                                                                                                                                                                                                                               N-linked (GlcNAc...)
N-linked (GlcNAc...)
                                                                                                                                                                                                                                                                                                                                              Cytoplasmic (Potential)
N-linked (GlcNAc. . .)
                                                                                                                                                                                                                    /FTId=VAR_019435.
N -> K (in dbsNP:2445180).
                                                                                                                                                                                                                                                                                   ţ
                                                                                                                                                                                                                                                                                   (in dbSNP:2468774).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               in M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .I., Anderson D.J specific subsets
                                                                                                                                                                                                                                                                                                                     (Potential).
                                                                                                                                                                                                                                                                                                                                                 (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gh a collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  of:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9
```

```
RESULT MESULT OLD IN MESULT OL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                              Suwa M.,
Tsutsumi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q96LB1;
01-OCT-2004
01-OCT-2004
01-OCT-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LT 8
HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=21435808; PubMed=11551509;
MEDLINE=21435808; PubMed=11551509;
Han S.-K., Zylka M.J., Simon M.I.,
MEDLINE=22386257; PubMed=12477932; DOI=10.1073/pnas.242603899; Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G., Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.
                                                            TISSUE=Brain;
MEDLINE=22388257;
                                                                                                                                                                                                                                                                                                                                                                                                                                           Dong X., Han S.-K., Zylka M.J., Simon "A diverse family of GPCRs expressed nociceptive sensory neurons."; Cell 106:619-632(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mas-related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MRG2
                                                                                                        SEQUENCE FROM
                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                              FEBS
                                                                                                                                                                                                                                                                                                                                     Takeda S., Kadowaki S., Haga T., Take "Identification of G protein-coupled
                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=22040266; PubMed=12044878;
                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=9606,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Name=MRGX2;
                                                                                                                                                                                        Tsutsumi S., Aburatani H., 
"Genome-wide discovery and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MAMDH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             266;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   76
                                                                                                                                                                                                                                                                                                                  sequence.
                                                                                                                                                                                                                               : FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                 genes.";
d (JUL-2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RIHLDWKVLFCHVHLVSIFLSALNSSANDIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLSVLWPIWYRCRRPTHLSAVVCVLLWGLSLLFSMLEWRFCDFLFSGADSSWCETSDFIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VAWLIFLCVVLCVSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGILGALIY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IAWLVFLCVVLCGSSLVLLVRILCGSRKWPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VSIYILNLAAADFLFLSFQIIRSPLRLINISHLIRKILVSVMTFPYFTGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VDKGEGQLPEESLELSGSRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VDEGGGWLPQETLELSGSRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RMHLNLEVLYCHVYLVCMSLSSLNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDKPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             319
322 AA;
                                                                                                                                                                                                                                                                                              520:97-101 (2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (Rel.
(Rel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            G-protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                        N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STANDARD;
                                                                                                                                                                                    Okouchi I., Arita M., Futa
atani H., Asai K., Akiyama
overy and analysis of humar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  45,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               319 1
36434 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                77.5%;
                                                                                                                                                 ť
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Created)
Last sequence update)
Last annotation update)
coupled receptor member
                                                                                                                                                 the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20;
                                                                                                                                                 EMBL/GenBank/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R -> K (in Ref. 2).
; 7CA676F8BD390A31 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 1367;
Pred. No. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                           Takaesu H.,
                                                                                                                                                                                                                                                                                                                                     neceptor genes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       330
                                                                                                                                                                                          human
                                                                                                                                                                                                                Futami K., yama Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .I., Anderson D.J., specific subsets of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .6e-92;
                                                                                                                                                                                          Beven
                                                                                                                                                 databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ž
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                            transmembrane
                                                                                                                                                                                                                                   Matsumoto
                                                                                                                                                                                                                                                                                                                                       from the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                          human
    .
.
.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                            helix
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
```

```
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Willalon D.K., Muzny D.M., Sodergren B.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton B., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA Mhiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green B.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Schnerach A., Schein J.E., Jones S.J.M., Marra M.A.;
RGeneration and initial analysis of more than 15,000 full-length human
Pfam; PF00001; 7tm 1; 1.

PRINTS; PR00237; GFCRHADDSN.

PROSITE; PS00237; GFROTEIN RECEP F1 2; 1.

PROSITE; PS0262; G_PROTEIN_RECEP F1 2; 1.

PROSITE; PS0262; G_PROTEIN_RECEP F1 2; 1.

PROMAIN

1 3 Extracellular (Potential).

TRANSMEM 4 54 (Potential).

TRANSMEM 64 84 (Potential).

TRANSMEM 95 96 Extracellular (Potential).

TRANSMEM 97 117 3 (Potential).

TRANSMEM 118 144 Cytoplasmic (Potential).

TRANSMEM 145 165 4 (Potential).

DOWAIN 118 144 (Potential).

TRANSMEM 145 165 4 (Potential).

TRANSMEM 145 165 4 (Potential).

TRANSMEM 145 165 4 (Potential).

TRANSMEM 185 205 5 (Potential).

TRANSMEM 229 249 6 (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EW the European Bioinformatics Institute. There are no restruse by non-profit institutions as long as its content modified and this statement is not removed. Usage by and entities requires a license agreement (See http://www.isb-sor send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ganglion.";
J. Biol. Chem. 278:44400-44404 (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; AY042214; AAK91805 1; -.
EMBL; AD083626; BAB89339.1; -.
EMBL; AB065811; BAC06030 1; -.
EMBL; BC063450; AAH63450.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PubMed=12915402; DC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Proc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE SPECIFICITY, AND POSSIBLE FUNCTION. PubMed=12915402; DOI=10.1074/jbc.M302456200; Robas N., Mead E., Fidock M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "MrgX2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 [nterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                coupled.
SUBCELULAR LOCATION: Integral membrane protein.
TISSUE SPECIFICITY: Has a limited expression profile, be peripheral and within the central nervous system, with levels in dorsal root ganglion.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FUNCTION: Orphan receptor. Probably involved in the function nociceptive neurons. May regulate nociceptor function and/or development, including the sensation or modulation of pain. Cortistatin-14 seems to be a high potency ligand at this receptoristatin has several biological functions including roles
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sleep regulation locomotor activity, and corrical function. In receptor-expressing cells, cortistatin-stimulated increases in intracellular \text{Ca}(2+) but had no effect on basal or forskolinstimulated cAMP levels, suggesting that this receptor is \text{G}(q)-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mas subfamily.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIMILARITY: Belongs to family 1 of G-protein coupled receptors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cDNA sequences.";
l. Acad. Sci. U.S.A. 99:16899-16903(2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IPR000276; GPCR_Rhodpsn.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a high potency cortistatin receptor expressed in dorsal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            There are no restrictions ng as its content is in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         by and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               both
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        highest
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                commercia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               root
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ᇊ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FFFFS
             RA Strausberg R.L., Peingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Altschul S.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.P., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Diatchenko L., Warusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Raha S.S., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Raha S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Richards S., Worley K.C., Hale S., Sarcia A.M., Gay L.J., Hulyk S.W.,
RA Richards S., Worley K.C., Hale S., Shevchenko Y., Bouffard G.G.,
RA Rahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA Whiting M., Madan A., Young A. C., Shevchenko Y., Bouffard G.G.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Schein J.E.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Schein 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TRANSMEM
DOMAIN
VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAH63450;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02-MAR-2004 (TrEMBLrel.
02-MAR-2004 (TrEMBLrel.
02-MAR-2004 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=22388257; PubMed=12477932;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                   FISSUB=Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MDSTIPVLGTELTPINGREET----PCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RNAFSVYVLSLAGADFLFLCFQIINCLVYLSNFFCS----ISINFP--SFFTTVMTCAYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGLPFGIQWFLILWIWKDSDVLFCHIHPVSVVLSSLNSSANPIIYFFVGSFRKQWRLQQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGLPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQN-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RNAVSIYILNLVAADFLFLSGHII------CSPLRLINIRHPISKILSFVMTFPYF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MDPTTPAWGTESTTVNGNDQALLLLCGKETLIPVFLILFIALVGLVGNGFVLWLLGFRMR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -LKLVLQRALQDTPEVDEGGGWLPQETLELSGSRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    265
286
62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ŋ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    285
330
62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chordata; Craniata; Vertebrata; Buteleostomi; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 37099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      56.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27, Created)
27, Last sequence update)
27, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ME;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 989.5; DB 1;
Pred. No. 1.5e-64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cytoplasmic (Potential).
N -> S (in dbSNP:10833049)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N -> S (in dbSNP:
/FTId=VAR_019433.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0B328FD78B1DF6BE CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
```

```
RESULT 10
QTIN42
ID TIN4
AC QTIN4
DT 01-OC
DT 01-M
DT 01-M
DT MRGC
GN NameC
OC Bukan
OC Hamm
OX NCBI
RN [1]
RP SEQU
RC STRU
RY ZYI
RT "At
RT "At
RT "At
RT "At
RT "AT
RT GO
DR IN
DR PR
DR PR
DR PR
DR PR
DR PR
SQ SI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               중 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SERRER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                 C STRAIN-Sprague-Dawley;

X MEDLINE-22810130; PubMed=12909716;

X MEDLINE-22810130; PubMed=12909716;

X Zylka M.J., Dong X., Southwell A.L., Anderson D.J.;

A Zylka M.J., Dong X., Southwell A.L., Anderson D.J.;

Tylcal expansion in mice of the sensory neuron-specific Mrg

T protein-coupled receptor family.";

Proc. Natl. Acad. Sci. U.S.A. 100:10043-10048 (2003).

R EMBL; AF518245; AAQ08317.1;

R GO; GO:0015021; C:integral to membrane; IEA.

RGO; GO:0004872; F:receptor activity; IEA.

RGO; GO:0004872; F:receptor activity; IEA.

RGO; GO:0001584; F:rhodopsin-like receptor activity; IEA.

RGO; GO:0007186; P:G-protein coupled receptor protein signalin DR GO:0007186; P:G-protein GO:0007186
Query Match
Best Local Sim
Matches 172;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 208; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q7TN42;
01-OCT-2003 (TrEMBLrel. 25, Created)
01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
MRGC G protein-coupled receptor.
                                                                                                                               Pfam; PF00001; 7tm 1; 1.

PROSITE; PS00237; G PROTEIN RECEP_F1_1;

PROSITE; PS50262; G_PROTEIN_RECEP_F1_2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ___, _ucneri
NCBI_TaxID=10116;
[1]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q7TN42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Strausberg R.; Submitted (DEC-2003) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM
                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Receptor.
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; BC063450;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     μ
                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ILKLALQRALQDIAEVDHSEGCFRQGTPEMSRSSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -LKLVLQRALQDTPEVDEGGGWLPQETLELSGSRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGLPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQN-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GDSGWCQTFDFITAAWLIFLFMVLCGSSLALLVRILCGSRGLPLTRLYLTILLTVLVFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADSVWCETSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKMFLTRLYVTILLTVLVFLL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGLSMLSTVSTERCLSVLWPIWYRCRRPRHLSAVVCVLLWALSLLLSILEGKFCGFLFSD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RNAFSVYVLSLAGADFLFLCFQIINCLVYLSNFFCS----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RNAVSIYILNLVAADFLFLSGHII------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MDPTTPAWGTESTTVNGNDQALLLLCGKETLIPVFLILFIALVGLVGNGFVLWLLGFRNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MDSTIPVLGTELTPINGREET---PCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGLPFGIQWFLILWIWKDSDVLFCHIHPVSVVLSSLNSSANPIIYFFVGSFRKQWRLQQP
                                                                                               323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         330 AA;
    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                             A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAH63450.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         37099 MW;
                                                                                             37136 MW;
                       46.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           56.1%; Score 989.5;
62.1%; Pred. No. 1.56
tive 27; Mismatches
    51;
  ; Score 823.5;
; Pred. No. 2.1e
51; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                             50639FDAE42E8052 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0B328FD78B1DF6BE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      323
                                                                                                                                        UNKNOWN_1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1.5e-64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      B
                          .1e-52;
                                             DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CSPLRLINIRHPISKILSPVMTFPYF 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           79;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            - ISINFP -- SFFTTVMTCAYL
                                             Length 323;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                 signalin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           330;
  11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21;
                                                                                                                                                                                                                                                                                                                                                                                             Mrg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
  Gaps
                                                                                                                                                                                                                                      IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
  6
```

```
RESULT 11
SNS1_RAT
ID SNS1_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SNS1 RAT STANDARD; PKT; 343 Am.

(QRR4G1;
01-OCT-2004 (Rel. 45, Created)
01-OCT-2004 (Rel. 45, Last sequence update)
01-OCT-2004 (Rel. 45, Last annotation update)
Sensory neuron-specific G-protein coupled receptor
                                                                                                                                                                                                                                                                 "Procencephalin A gene products activate a new family of sensory neuron-specific GPCRs.";
Nat. Neurosci. 5:201-209(2002).
-i- FUNCTION: Orphan receptor. Probably involved in the function of nociceptive neurons. May regulate nociceptor function and/or development, including the sensation or modulation of pain.
-i- SUBCELLULAR LOCATION: Integral membrane protein.
-i- TISSUB SPECIFICITY: Uniquely localized in a subset of small dor root and trigeminal sensory neurons. Associated preferentially with 184 class of small-diameter somatosensory afferents (also
                                                                    the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for comentities requires a license agreement (See http://www.isb-sib.ch/ar send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Lembo P.M.C., Grazzini E., Groblewski T., O'Donnell D., I
Zhang J., Hoffert C., Cao J., Schmidt R., Pelletier M., I
Gosselin M., Fortin Y., Banville D., Shen S., Stroem P.,
Dray A., Walker P., Ahmad S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A., AND TISSUE SPECIFICITY.
STRAIN-Sprague-Dawley;
MEDLINE=21853733; PubMed=11850634; DOI=10.1038/nn815;
                                  EMBL; AF474986; AAL86877.2; ALT_INIT
                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Name=Snsrl; Synonyms=Snsr; Rattus norvegicus (Rat).
                                                                                                                                                                                                                                    ÷
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=10116;
                                                                                                                                                                                                                   Mas subfamily.
                                                                                                                                                                                                                                      known as nociceptors).
SIMILARITY: Belongs to
                 632284;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MDPTISSLSTESTTLNKTGHPSC-RPILTLSFLVPIITLLGLAGNTIVLWLLGFRMRRKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKWPLTRLYVTILLTVLVFLLCGLPFGIQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WAL--FSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VSIYILNLVAADFLFLSGHIICSFLRLINI----RHFISK-ILSFVMTFFYFIĞLSMLSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ALQDTPEVDEGGGWLPQETLELSGSR 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VDFIVTAFLIFLFMLLFGSSLALLVRILCGSRRKPLSRLYVTISLTVMVYLICGLPLGLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ISTERCLSVLWPIWYHCHRPRNMSAIICVLIWVLSFLMGILDWFFSGFLGETHHHLW-KN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ISVYVLNLSLADSFFLCCHFIDSLMRIMNFYGIYAHKLSKBILGNVAFIFYISGLSILSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ALEETPEEDEYTDSHVOKPTEISERR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LFLLYWFGIHLHYP--FCHIYQVTVLLSCVNSSANPIIYFLVGSFRHRKKHRSLKMVLKR
                  Sner1.
                                                                                                                                                                                                                                  Belongs to family 1 of G-protein coupled receptors
                                                                                        http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Roy M.-O.,
Labarre M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Payza K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rattue
                                                                                                                                                                                                                                                                                                            dorsal
                                                                                                               commercia
                                                                                                                                                                                                                                                                                                                                                                                                     O.F
                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                          1ts
way
```

```
QBCIP 12
QBCIP AC QBCIP AC QBCIP O1-MA
DT 01-MA

                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local S
Matches 171
                                                                                                                                                                                                                                                Q8CIP3 PRELIMINARY;
Q8CIP3;
01-MAR-2003 (TrEMBLrel. 2
01-MAR-2003 (TrEMBLrel. 2
01-MAR-2004 (TrEMBLrel. 2
G protein-coupled recepto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TRANSMEM
DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TRANSMEM
DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TRANSMEM
DOMAIN
STRAIN=C57BL/6; MEDLINS=22317401; PubMed=12397184; MEDLINS=22317401; PubMed=12397184; Han S.K., Dong X., Hwang J.I., Zylka M.J., Anderson D.J., Simon M.I.; "Orphan G protein-coupled receptors MrgAl and MrgCl1 are distinctively activated by RF-amide-related peptides through the Galpha q/11 pathway.";
                                                                                                                                               Eukaryota; Metazoa;
Mammalia; Eutheria;
NCBI_TaxID=10090;
                                                                                                                                                                                                                            G protein-coupled Name=MrgCl1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                G-protein
DOMAIN
                                                                                                                                                                                                              Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRINTS; PR00237; GFCRRHODOPSN.
PROSITE; PS00237; G PROTEIN RECEP_F1_2; 1.
PROSITE; PS50362; G PROTEIN_RECEP_F1_2; 1.
G-protein coupled receptor; Glycoprotein;
                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 309
                                                                                                                                                                                                                                                                                                                                                                                                                                             297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         171;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              pF00001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LFLLYMFGIHLHYP--FCHIYQVTVLLSCVNSSANDIIYFLVGSFRHKKHRSLKMVLKR
                                                                                                                                                                                                                                                                                                                                                                                                                                             ALEETPEEDEYTDSHVQKPTEISERR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ALQDTPEVDEGGGWLPQETLELSGSR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WAL--FSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ISTERCLSVLWPIWYHCHRPRNMSAIICVLIWVLSFLMGILDWFFSGFLGETHHHLW-KN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ISVYVLNLSLADSFFLCCHFIDSLMRIMNFYGIYAHKLSKEILGNAAIIPYISGLSILSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VSIYILNLVAADFLFLSGHIICSPLRLINI----RHPISK-ILSPVMTFPYFIGLSMLSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        31
52
60
81
101
122
144
1165
1181
122
227
227
228
289
                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7tm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30
51
80
100
121
143
143
143
201
201
226
227
228
323
37074
                                                                                                                                                                                                                                            3Lrel. 23, Created)
BLrel. 23, Last sequence update)
BLrel. 26, Last annotation updat
receptor MrgCll.
                                                                                                                                                                       Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            46.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MW.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Extracellular (Potential).

1 (Potential).

Cytoplasmic (Potential).

2 (Potential)

Extracellular (Potential).

3 (Potential).

Cytoplasmic (Potential).

4 (Potential).

Extracellular (Potential).

5 (Potential).

Extracellular (Potential).

5 (Potential).

5 (Potential).

6 (Potential).

8 (Potential).

7 (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 820.5;
Pred. No. 3.4e
51; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cytoplasmic (Potential). N-linked (GlcNAc. . .) (
                                                                                                                                                                         Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      40DE6E2C6420EE4B
                                                                                                                                                                                                                                                                                                                                                                                                                                             322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 334
                                                                                                                                                                                                                                                                                                                                                  322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3.4e-52;
93;
                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Transmembrane
                                                                                                                                                                                                                                                                    update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6
```

```
RESULT 13
MRGA RAT
ID MRGA
AC Q7TN4
AC Q7TN4
DT 01-OC
CC RATTU
OC RATTU
OC RATTU
OC FUKAI
RA RATU
RA STOUIS
RA ESULI
RX MEDLLI
RX MEDLLI
RX MEDLLI
RX MEDLI
RX MEDLLI
RX MEDLI
RX MEDLLI
RX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S
Matches 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Receptor.
SEQUENCE
                                                        STRAIN-Sprague-Dawley;

MEDLINB-22810130; PubMed=12909716; DOI=10.1073/pnas.1732949100;

Zylka M.J., Dong X., Southwell A.L., Anderson D.J.;

Zylka M.J., Dong X., Southwell A.L., Anderson D.J.;

"Atypical expansion in mice of the sensory neuron-specific Mrg

protein-coupled receptor family.";

Proc. Natl. Acad. Sci. U.S.A. 10011043-10048(2003).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Simon M.I.;
submitted (SEP-2002) to the EMBL/GenBank/DDBJ databas EMBL; AY152435; AAN64385.1; -.
GO; GO:0016021; C:integral to membrane; IEA.
GO; GO:0004872; F:receptor activity; IEA.
GO; GO:0001584; F:rhodopsin-like receptor activity; I
GO; GO:0001584; F:g-protein coupled receptor protein
                                                                                                                                                                                                                                                                                                                                                            OTTN49;
01-OCT-2004 (Rel. 45, Created)
01-OCT-2004 (Rel. 45, Last sequence up
01-OCT-2004 (Rel. 45, Last annotation
                                                                                                                                                                                                                                                                     Name=Mrgpra; Synonyms=Mrga;
Rattus norvegicus (Rat)
Bukaryota; Metazoa; Chordata;
Mammalia; Butheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRINTS; PR00237; GFCKRHODOPSN.

PROSITE; PS00237; G PROTEIN_RECEP_F1_1;
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2;
                                                                                                                                                                                                                                             NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           InterPro; IPR000276; GPCR_Rhodpsn.
Pfam; PF00001; 7tm_1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN=C57BL/6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Han S.-K., Dong X.,
  FUNCTION: Orphan receptor. May regulate nociceptor development, including the sensation or modulation SUBCELLULAR LOCATION: Integral membrane protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Natl.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RALQDTPEVDEGGGWLPQETLELSGSR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMPCDPLFSGADSVWCB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AVSIYILNLVAADFLFLSGHIICSPLRLINI----RHPISK-ILSPVMTFPYFIGLSMLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MDPTISSHDTESTPLNETGHPNCTPILTLSF--LVLITTLVGLAGNTIVLWLLGFRMRRK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MDSTIPVLGTELTPINGREETPCYK-QTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YLFLLYWFGVHLHYP--FCHIYQVTAVLSCVNSSANPIIYFLVGSFRQHRKHRSLKRVLK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QWAL--FSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NVDFIITAFLIFLFMLLSGSSLALLLRILCGPRRKPLSRLYVTIALTVMVYLICGLPLGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AISVYILNLALADSFFLCCHFIDSLLRIIDFYGLYAHKLSKDILGNAAIIFYISGLSILS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RALEDTPEEDEYTDSHLHKTTEISESR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Acad. Sci.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hwang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              36809 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            45.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     J.-I.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 797; DB 2;
Pred. No. 1.8e-50;
                                                                                                                                                                                                                                                                       Craniata; Veri
Sciurognathi;
                                                                                                                                                                                                                                                                                                                                                                 receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99:14740-14745 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1E03ECD5A4AF88DC CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Zylka
                                                                                                                                                                                                                                                                                                                                                                                                              update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   321
                                                                                                                                                                                                                                                                                                                                                                    update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     M.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           UNKNOWN_1.
                                                                                                                                                                                                                                                                            Vertebrata;
thi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ₹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Anderson
                                                                                                                                                                                                                                                                                                                                                                    Þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                         Euteleostomi;
; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IEA.
n signalin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        D.J.,
                          function of pain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14;
                                                    and/or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           :.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
```

```
RESULT 14
Q91YB7
ID Q91YB
AC Q91YB
DT 01-DE
DT 01-DE
DT 01-MA
DE G-pro
GN Name=
                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                중 유
                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local S
Matches 176
Q91YB7
Q91YB7;
Q1-DEC-2001 ('
01-DEC-2001 ('
01-MAR-2004 ('
G-protein coul
Name=rc 56.1.'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PHAM; PF00001; 7tm 1; 1.

PHAM; PF00001; 7tm 1; 1.

PROSITE; PS00237; G_PROTEIN_RECEP_F1_2; 1.

PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.

G-protein coupled receptor; Transmembrane.

G-protein coupled receptor; Transmembrane.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TRANSMEM DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; AF518238; AAQ08310.1; -.
RGD; 738050; Mrgpra.
InterPro; IPR000276; GPCR_Rhodpsn.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mas subfamily.
                                                                                                                                                                                                               281
                                                                                                                                                                                                                                                307
                                                                                                                                                                                                                                                                                                                          247
                                                                                                                                                                                                                                                                                                                                                               162
                                                                                                                                                                                                                                                                                                                                                                                                    188
                                                                                                                                                                                                                                                                                                                                                                                                                                         106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  al Similarity
176; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            μ
                                                                                                                                                                                                                                                QRALQDTPEVDEGGGWLPQETLELSGSRLE
                                                                                                                                                                                                                                                                                                                                                               RCLASNFFTAACLIFLFVVLCLSSLALLVRLFCGAGRMKLTRLYATIMLTVLVFLLCGLP
                                                                                                                                                                                                                                                                                                                                                                                       -CETSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKWPLTRLYVTILLTVLVFLLCGLP
                                                                                                                                                                                                                                                                                                                                                                                                                                      STERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVW----
||||||: ||| ||: |: || || || || || ||: |
STERCLSVVCPIWYRCRRPKHTSTVMCSAIWVLSLLICILNRYFCGFL----DTKYEKDN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AFSVYILNLALADFLFLLCHIIDSTLLLLKFSYPNIIFLPCFNTVMVPYIAGLSMLSAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AVSIYILNLVAADFLFLSGHIICSPLRLINIRHP---ISKILSPVMTFPYFIGLSMLSAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MDKTIP-----GSFNSRTLIP-----NLLIIISGLVGLTGNAMVFWLLGFRLARN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVS-LVALTGNAVVLWLLGCRMRRN
                                                                                                                                                                                                             QRALQDTPETAE-----NTVEMSSSKVE
                                                                                                                                                                                                                                                                                       FGIHWFLLIWIKIDYGKFAYGLYLAALVLTAVNSCANPIIYFFVGSFR-HQKHQTLKMVL
                                                                                                                                                                                                                                                                                                                        FGIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVL
                   coupled
                                   1 (TrEMBLrel. 19,
1 (TrEMBLrel. 19,
4 (TrEMBLrel. 26,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18
39
47
68
81
102
133
154
168
189
212
233
245
                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Belongs to family 1 of G-protein coupled receptors.
                     receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               38
46
67
80
101
132
153
157
188
211
232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                44.4%; Score 782; DB 1;
53.3%; Pred. No. 2.1e-49;
tive 34; Mismatches 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 (Potential).

Cytoplasmic (Potential).

2 (Potential).

Extracellular (Potential).

3 (Potential).

Cytoplasmic (Potential).

4 (Potential).

Extracellular (Potential).

5 (Potential).

5 (Potential).

Cytoplasmic (Potential).

6 (Potential).

Cytoplasmic (Potential).

6 (Potential).

7 (Potential).

Extracellular (Potential).

7 (Potential).

Cytoplasmic (Potential).

Cytoplasmic (Potential).

Cytoplasmic (Potential).
                                   Created)
Last sequence update)
Last annotation update)
                                                                                                                 331
                                                                                                                                                                                                                                                336
                                                                                                                 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  84;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 304;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a collaboration - MBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                          306
                                                                                                                                                                                                                                                                                                                                                                                                    246
                                                                                                                                                                                                                                                                                                                                                                                                                                         161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          45
                                                                                                                                                                                                                                                                                       280
                                                                                                                                                                                                                                                                                                                                                             221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
 QRCDY4
ID QRCDY
AC QR
                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches 176;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local
                                                                                                                                                                                                                                                Q8CDY4
Q8CDY4;
01-MAR-2003
                                                  Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Bukharia; Eutheria; Rodentia;
MAMMALIA: TaxID=10090;
 SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Head;
                                                                                                                                full insert sequence. Name=4833406I20Rik;
                                                                                                                                                                                                                                                                                                                                                                                   308
                                                                                                                                                                                                                                                                                                                                                                                                                      307
                                                                                                                                                                                                                                                                                                                                                                                                                                                           249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28
```

```
EMBL, AJ311952; CAC84592.1;

GO; GO:0016021; C:integral to membrane; IEA.
GO; GO:00018072; F:receptor activity; IEA.
GO; GO:0001584; F:rhodopsin-like receptor activity; IE.
GO; GO:0007186; P:G-protein coupled receptor protein s
InterPro; IPR000276; GPCR_Rhodpsn.

R Pfam; PF00001; 7tm 1; 1.
R PRINTS; PR00237; GFCRRHODOPSN.
R PROSITE; PS00237; G-PROTEIN_RECEP_F1_1; UNKNOWN_1.
R PROSITE; PS00237; G-PROTEIN_RECEP_F1_2; 1.
     01-MAR-2003 (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
Mus musculus 0 day neonate head cDNA, RIKEN full-length
library, clone:4833406I20 product:MrgB2 G protein-couple
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bender E., Buist A., Jurzak M., Langlois X., Baggerman G., Verhasselt P., Ercken M., Guo H.Q., Wintmodlers C., Verhasselt I., Van Oers I., Schoofs L., Luyten W.; Van den Wyngaert I., Van Oers I., Schoofs L., Luyten W.; "Characterization of an orphan G protein-coupled receptor localized the dorsal root ganglia reveals adenine as a signaling molecule."; Proc. Natl. Acad. Sci. U.S.A. 99:8573-8578(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=10116;
[1]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. MEDLINE=22080228; Pubmed=12084918;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RCLASNE TAACLIELE VVLCLSSLALL VRSE CGAGRMKLTRLYATIMLT VLVELLCGLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AFSVYILNLALADFLFLLCHIIDSTLLLLKFSYPNIIFLPCFNTVMVPYIAGLSMLSAI
                                                                                                                                                                                                                                                                                                QRALQDTPETAE----NTVEMSSSKVE
                                                                                                                                                                                                                                                                                                                             QRALQDTPEVDEGGGWLPQETLELSGSRLE 336
                                                                                                                                                                                                                                                                                                                                                                                                  FGIHWFLLIWIKIDYGKFAYGLYLAALVLTAVNSCANPIIYFFVGSFR-HQKHQTLKMVL
                                                                                                                                                                                                                                                                                                                                                                                                                                          FGIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLXLVL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STERCLSVVCPIWYRCRRPKHTSTVMCSAIWVLSLLICILNRYFCGFL----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVW----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AVSIYILNLVAADFLFLSGHIICSPLRLINIRHP---ISKILSPVMTFPYFIGLSMLSAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MDKTIP-----GSFNGRTLIP------NLLIIISGLVGLIGNAMVFWLLGFRLARN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVS-LVALTGNAVVLWLLGCRMRRN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -CETSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKWPLTRLYVTILLTVLVFLLCGLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     331 AA;
                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        37005 MW; 74BAEA8C557859AC CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        53.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 778; DB 2;
Pred. No. 4.5e-49;
3; Mismatches 85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Craniata; Vertebrata; E
Sciurognathi; Muridae;
                                                                                                                                                                  338
                                                                                                                                                                                                                                                                                                330
                                                                                                                                                                  ₿
protein-coupled recepto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein signalin. .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 331;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Euteleostomi; 
; Murinae; Rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -DTKYEKON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      :.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      in
                                                                                                                                                                                                                                                                                                                                                                                                        307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
```

Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus

receptor

```
RA Adachi J., Aizawa K., Akimura T., Arakawa T., Bono H., Carninci P.,
RA Hayashida S., Furuno M., Hanagaki T., Hara A., Hashizume W.,
RA Hayashida K., Hayatsu N., Hiramoto K., Hiroka T., Hirozane T.,
RA Hori F., Imotani K., Ishii Y., Itoh M., Kagawa I., Kasukawa T.,
RA Katoh H., Kawai J., Kojima Y., Kondo S., Konno H., Kouda M., Koya S.,
RA Kurihara C., Matsuyama T., Miyazaki A., Murata M., Nakamura M.,
RA Kurihara K., Nomura K., Numazaki R., Ohno M., Ohbato N., Okazaki Y.,
RA Saito R., Saitoh H., Sakai C., Sakai K., Sakazume N., Sano H.,
RA Sasaki D., Shibata K., Shinagawa A., Shiraki T., Sogabe Y., Tagami M.,
RA Tomaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y.;
RA Tomaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y.;
RA Tomaru A., Toya T., Yasunishi A., Muramatsu M., Hayashizaki Y.;
RR MGD, MGI 2441674; 4833406120Rik.
DR GO; GO:00018021; C:integral to membrane; IEA.
DR GO; GO:000184; F:rhodopsin-like receptor activity; IEA.
DR GO; GO:000186; P:G-protein coupled receptor protein signalin. ..; IEA.
DR GO; GO:0007186; P:G-protein coupled receptor protein signalin. ..; IEA.
DR Fam: PF000017 7tm 1: 1.
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE-20530913; PubMed=11076861; Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Carminci P., Shibata K., Itoh M., Aizawa K., Kitsunai T., Tashiro H., Itoh M., Konno H., Akiyama J., Nishi K., Kitsunai T., Tashiro H., Itoh M., Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A., Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K., Fujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Wattahiki M., Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J., Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y., RIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer."; Genome Res. 10:1757-1771(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Carminci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K., It Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.; "Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new gegenome Res. 10:1617-1630(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Head;
MEDLINE=20499374; PubMed=11042159;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUB=Head;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Head;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The RIKEN Genome Exploration Research Group Phase I & II "Analysis of the mouse transcriptome based on functional 60,770 full-length cDNAs."; Nature 420:563-573(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Head;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RIKEN FANTOM Consortium; "Functional annotation of a full-length mouse cDNA collection.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Head;
MEDLINE=21085660; PubMed=11217851;
                                                                                                                                                                                                                                                          Pfam; PF00001; 7tm 1; 1. PRINTS; PR00237; GPCRHODOPSN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The FANTOM Consortium,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Nature 409:685-690(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=99279253; PubMed=10349636;
Carninci P., Hayashizaki Y.;
"High-efficiency full-length cDNA cloning.";
                                                                                                                                                                                  PROSITE; PS00237; PROSITE; PS50262;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Enzymol. 303:19-44(1999).
                                                                                                             338
                                                                                                             Ŋ,
                                                                                                                                                                      G_PROTEIN_RECEP_F1_1;
G_PROTEIN_RECEP_F1_2;
   43.3%;
                                                                                                             38866 MW;
   Score 763; DB 2;
Pred. No. 5.8e-48;
                                                                                                             7809FF78F7CEFCD6 CRC64;
                                                                                                                                                                                     UNKNOWN_1.
                                  Length 338;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Shibata K., Itoh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         of new genes.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Team;
annotation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ۵.
```

```
문
                           S
                                                       밁
                                                                                S
                                                                                                               밁
                                                                                                                                    5
                                                                                                                                                                     밁
                                                                                                                                                                                             S
                                                                                                                                                                                                                              묽
                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                               183
                                                                                                                                                                      123
  303
                             303
                                                        243
                                                                                   244
                                                                                                                                          184
                                                                                                                                                                                                  124
                                                                                                                                                                                                                              65
                                                                                                                                                                                                                                                                                                                                          159;
                                                                                                                                                                                                                                                        70
                                                                                                                                                                                                                                                                                                              13 FLSMDSTIPVLGTELTPINGR---EETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGC
                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                   GLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGA
                                                                                                                                                                                                                                                        RMRRNAVSIYILNLVAADFLFL-SGHIICSPLRL----INIRHPISKILSPVMTFPYFI
                 KLVLQRALQDTPEVDEGG 320
                                                        GLPFGIYWILYQWISNFYYVEICNFYLEILFLSCVNSCMNPIIYFLVGSIRHRRFRRKTL
                                                                              GLPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANDIIYFFVGSFRQRQ-NRQNL
                                                                                                               DSYMCETFOVITNIMSVVFFGVLCGSSLTLLVRIFCGSQRIPMTRLYVTITLTVLVFLIF
                                                                                                                                 DSVWCETSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLC
                                                                                                                                                                      GLSILSTISIERCLSVIWPIWYRCKRPRHTSAITCFVLWVMSLLLGLLEGKACGLLFNSF 182
                                                                                                                                                                                                                            RMHTNAFTVYILNLAMADELYLCSQEVICLLIAFYIFYSIDINIPL--VLYVVPIFAYLS
                                                                                                                                                                                                                                                                                    FLIKNLSTSAWKTNITVLNGSYYFDTSVCVTRNQAMILLSIIISLVGMGLNAIVLWFLGI
KLLLQRAMODTPEEEQSG 320
                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                           48;
                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                           99;
                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                             12;
                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                           123
                                                           302
                                                                                      302
                                                                                                                 242
                                                                                                                                                                                                  183
                                                                                                                                                                                                                              122
                                                                                                                                                                                                                                                                                     64
                                                                                                                                                                                                                                                                                                                 69
```

Search completed: October 27, 2004, 08:33:33 Job time: 192 secs

Of the state of th

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                   Minimum
Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Run
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                          Total number of hits satisfying
                                                                                                                                                                                                                                                                                                                                                                                  Database :
                                                                                                                                                                                                                                                                                                                                                                                                Post-processing: Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Word size :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OM protein -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               on:
  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                   멂
                                                                                                                                                                                                                               Score
                                                                                                                                                                                                                                                                                                                                                                                                                  seq length: 0 seq length: 2000000000
  protein search, using sw model
                                                                                                                                                                                                                                                                                                          Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OLIGO
Gapop 60.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-867-570-2
337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            October 27, 2004, 08:34:24 ; Search time 155 Seconds (without alignments) 779.947 Million cell updates/sec
  2002273 seqs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MESKSSWVIRLGFLSMDSTI.....
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Copyright
                                                                                                                                                                                                                               Length
 GenCore version 5.1.6 (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gapext 60.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                358729299 residues
                                                                        7553336788865555555
                                                                                                                                                                                                                                                                                                                                                                                                                                             chosen
          AAU97598

AAY90771

ABJ16993

ADI16993

ADI16998

ADI16998

ADI16998

ADI46935

ADO49705

ADO29705

ADP29105

AABP8176

ADP29105

AABP814846

AAY90762

AABP81699

ADC12766

AABP8695

ADC12766

AABP8695

ADC12766

AAPS9695

ADC12766
                                                                                                                                                                                                                                Ħ
                                                                                                                                                                                                                                                          SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                             parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .EGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                              2002273
Aau97598 Human G-p
Aay90761 Human G p
Abj04077 Human G p
Abj04077 Human Mrg
Adi16993 Human NOV
Adi16993 Human NOV
Adi16998 Human NOV
Adi16998 Human G p
Adh08535 MrgX3. 3/
Ado44602 Human GPC
Adf70481 Orphan re
Adf29105 Human GPC
Adf29105 Human GPC
Add16994 Human NOV
Ad901699 Human NOV
Ad04602 Human GPC
Ad044604 Human GPC
Ad044604 Human GPC
Ad044604 Human GPC
Ad044604 Human GPC
Ad930159 Human GPC
Aay30159 Human GPC
Abg30159 Human GPC
Abg30160 Human GPC
                                                                                                                                                                                                                               Description
```

**************************************	, , , , , , , , , , , , , , , , , , ,	RESI AACI AC AC AC AC AC AC AC AC AC AC AC AC AC	
Modified- Domain Modified- Modified- Domain Modified- Modified- Modified-	Rey Domain Domain Domain Modified Modified Modified	, and 75	00000000000000000000000000000000000000
ed-site	n n n ied-sit ied-sit ied-sit	pro ; st	<b>5</b> 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
	0 0 0 ·	ndard (fir ein c tein eutic	11111111111111111111111111111111111111
label= note= note= 29 . 2 label= label= 48 . 2 note= 19 . 2 note= 19 . 2 note= 19 . 2 10	Location/ 4161 /label= H /1595 /1595 /label= H 112132 /label= H 113135 /note= "P /note= "C	; prote st entr st entr coupled protei ; non-h	33333333333333333333333333333333333333
eli rot eli yri yri eli	on/Qualif  i Helix_1  = Helix_2  132  132  132  = Helix_3  = Helix_3  - "Protein  171  171  172  178  "Casein  184  "Casein  213	a . o . b	C C C C C C C C C C C C C C C C C C C
ein k  ein k  x_6  x_6  stoyl  stoyl  styl  glyco  ein k	X X +	ALIG ; 337 AA. ceptor (G receptor; query an transg	ADD11 AAX3 AAX3 AAX3 AAZ1 AAZ1 AAZ1 AAZ1 AAZ1 AAZ1 AAZ1 AAZ
Helix_5  "Protein kinase C  49 Helix_6 49 myristoylation si "Myristoylation si 181 Helix_7 82 82 82 "Pasn glycosylation 94 "Protein kinase C	ers kinase C inase II	LIGNMEN AA.  (GPCR)  (GPCR)  sequen  sequenic	ADD18024 AD11638 ADV42292 AAV30162 AAV30162 AAC64294 AAC12794 AAC12794 AAC12794 AAC12794 AAC12794 AAC12707 AAC21288 ADI16636 ADI16636 ADI16997 ABP59266 ADC26445 ABW00803 ADW0803 ADW0803 ADW0803 ADW08290 ADW42290
(PKC) te" te" site"	(PKC) (CK2)	TS  R; human prote  nce; search; ch  animal; gene	
phosphorylat phosphorylat	phosphorylat phosphorylat phosphorylat	protes ch; ch; chia	
phosphorylation phosphorylation	orylation orylation	blease; chromosome	Add18024 Adi1638 Adn42292 Aay30162 Aay30162 Aae12794 Aae12794 Aae12797 Aae21288 Adi1631 Adi1631 Adi1636 Adi66445 Adi66445 Adi0803 Adi1690 Adi66445 Adi0803 Adi0803 Adi0803 Adi0803 Adi0803
n site"	n site" n site"	<b></b>	Human
			O C C C C C C C C C C C C C C C C C C C

```
δ
                                                              밁
                                                                                           á
                                                                                                                            밁
                                                                                                                                                      S
                                                                                                                                                                                             뮍
                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present invention relates to a new G-protein coupled receptor (GPCR) CC peptide. The invention is useful for identifying a modulator of GPCR and CC for treating a disease or condition mediated by a human protease. The CC invention is also useful as models for the development of human cC development of human therapeutic spents, and as query sequence to perform CC development of human therapeutic agents, and as query sequence to perform CC a search against sequence databases to, for e.g., identify other family CC members of related sequences. The vector of the invention is useful for CC producing a GPCR protein or peptide, for conducting cell-based assays CC involving the GPCR protein or its fragment, for identifying GPCR protein CC animals. The present amino acid sequence represents the human G-protein CC coupled receptor (GPCR) protein of the invention. This sequence is cnocled by the human G-protein of the invention. This sequence is cnocled by the human G-protein coupled receptor (GPCR) gene located on CC chromosome 3
                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 337; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Novel isolated G-protein coupled receptor peptide useful for treating disorder characterized by absence of, in appropriate or unwanted expression of the receptor protein, and as immunogens to raise
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-OCT-2000;
31-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Wei M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-OCT-2001; 2001WO-US031592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02-MAY-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200234914-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (PEKE )
301
                                                               241
                                                                                                                               181
                                                                                                                                                              181
                                                                                                                                                                                               121
                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2002-463360/49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1; Fig
                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                  13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PE CORP NY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Zhao
                                                                                                                                               SGADSVMCETSDFITIAMLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVF
                                                                                                                                                                                                                  YFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLF
                                                                                                                                                                                                                                                                                    AVVLWLLGCRMRRNAVSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFP
                                                                                                                                                                                                                                                                                                                                                     MESKSSWVIRLGFLSMDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGN
                             NIKLVIORALODTPEVDEGGGWLPQETLELSGSRLEQ 337
                                                                                           LLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQ
                                                                                                                                                                                                                                                                 AVVLWLLGCRMRRNAVSIYILNLVAADFLFLSGHIICSFLRLINIRHFISKILSFVMTFF
                                                                                                                                                                                                                                                                                                                                  MESKSSWVIRLGFLSMDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGN
NLKLVLQRALQDTPEVDEGGGWLPQETLELSGSRLEQ
                                                                                                                               SGADSVWCETSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVF
                                                                                                                                                                                               YFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLF
                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 337; I ilarity 100.0%; Pred. No. 0; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-00695045.
2001US-00867570.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               75pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Woodage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABK52823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Casein kinase II (CK2) phosphorylation site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ď;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Francesco V,
                                                                                                                                                                                                                                                                                                                                                                                                                                 멂
                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Beasley
                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 337;
                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       M
                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                              300
                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                              240
                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                   60
                                                                                                                                                                                                                                                                                                                                                                                                  0
```

RESULT 2

```
AAY90761
IID AAYY
XX
AC Humm
AC Hum
AC Hu
                                          S
                                                                                                              片
                                                                                                                                                                  S
                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 322; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present sequence represents a human-derived G protein-coupled protein designated hill 71213, which is isolated from the human hippocampus. The G protein-coupled receptor can be used for preventing, traating and diagnosing genetic diseases associated with G protein-coupled protein, and for regulating cellular functions. The protein can be used to prevent and treat disorders associated with G protein-coupled protein gene dysfunction. It can also be used to identify G protein-coupled protein ligands and generating antibodies and antisers against the protein. It is also useful in constructing recombinant receptor protein expression systems, developing receptor-binding assay systems and screening drug candidates, and can be used as a probe in the genetic diagnosis of G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; G protein-coupled receptor; hippocampus; diagnosis; genetic disease; cellular function regulation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 322 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                dysfunction of the protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human-derived G protein-coupled e.g. in determining ligands and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human G protein-coupled receptor hHI7T213 SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAY90761 standard; protein; 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein-coupled protein disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1; Page 90-91; 97pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Watanabe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13-APR-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200020455-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAY90761;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (TAKE ) TAKEDA CHEM IND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000-303747/26
                                                                                                              181
                                                                                                                                                                     196
                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                         136
                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                          76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'n
                                                                                                                                                                                                                                                                   CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                        VSIYILNLVAADFLFLSGHIICSFLRLINIRHFISKILSFVMTFFYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 315
                                                                                                                                                                                                                                  CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT.
                                                                                                                                                                                                                                                                                                                                                VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                     IAMLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Terao Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98JP-00279535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-JP005366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 95.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matsui H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 322; DB 3; L
Pred. No. 2.9e-309;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           protein and encoding nucleic acid, useful treatment of diseases associated with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NO:1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     screening;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
300
                                                                                                                    240
                                                                                                                                                                           255
                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                            195
                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                             135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60
```

```
RESULT 3
ABJ04077
ID ABJC
XX AC ABJ(
XX ABJC
X
                                                               문
                                                                                                         S
                                                                                                                                                          밁
                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           日
                                                                                                                                                                                                                                                Query Match
Best Local S
Matches 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 27-NOV-2000;
12-DEC-2000;
20-FEB-2001;
20-FEB-2001;
06-APR-2001;
                                                                                                                                                                                                                                                                                                                                                                                   The present invention provides the protein and coding sequences of several human G-protein coupled receptors (GPCRs). These can be used in the identification of candidate compounds as receptor agonists or inverse agonists having applicability as therapeutic agents. The present sequence is a GPCR protein of the invention
                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Novel endogenous and non-endogenous versions of G protein-coupled receptor useful for identification of candidate compounds as receptors or antagonists for use as therapeutic agents.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               06-APR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26-NOV-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   30-MAY-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; G-protein coupled receptor; GPCR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABJ04077;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABJ04077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       06-APR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200242461-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (AREN-)
                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2002-566565/60.
DB; ABT04875.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  æ
                       136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  316
                                                                                                                                                                                                                                                   322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       G protein
                                                                   61
                                                                                                             76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      37; Page 75-76; 84pp; English.
                                                                                                                                                                                                      16
                                                                                                                                                          μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    hRUP33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ARENA PHARM INC.
                                                                                                                                                                                                                                                                                                                                              322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C
C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          standard;
CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                      VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                               VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                          MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                      MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRWRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VDEGGGWLPQETLELSGSRLEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VDEGGGWLPQETLELSGSRLEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2001US-0270266P.
2001US-0270286P.
2001US-0282033F.
2001US-0282356P.
2001US-0282358P.
2001US-0282358P.
2001US-0292358P.
2001US-029236P.
2001US-029236P.
                                                                                                                                                                                                                                              95.5%; Sillarity 100.0%; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZL,
                                                                                                                                                                                                                                                                                                                                              Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000US-0253404P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2001WO-US044386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               hRUP34; hRUP35; hRUP36; hRUP37.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       coupled receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Dang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ħ,
                                                                                                                                                                                                                                                k; Score 322; DB
k; Pred. No. 2.9
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Lowitz KP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       hRUP37
                                                                                                                                                                                                                                                                     DB 5; Le
2.9e-309;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pride
                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ű
                                                                                                                                                                                                                                                                                          Length 322,
                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          receptor
                                                                                                                                                                                                                                                   Gaps
                                                                      120
                                                                                                                135
                                                                                                                                                            60
                         195
                                                                                                                                                                                                                                                   0
```

```
RESULT 4
AABZ11296
AID AABZ2
AX W PO 04-N
AX O4-N
AX O4-N
AX O4-N
AX O4-N
AX AABZ2
A
  밁
                                              á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                       Query Match
Best Local S
Matches 322
                                                                                                                                                                                                                                                       The invention relates to Mrg (mas-related gene) protein, which is a G-protein coupled receptor and drg-12 protein, which is a receptor. The invention is useful for identifying compounds that bind to it, especially agonists or antagonists. Administration of an agent (e.g. the identified agonist) that increases the expression of Mrg in a mammal may be used for treating impaired sensory perception in a mammal, especially pain. The antagonist may also be useful for treating impaired sensory perception in a mammal. The present sequence is human MrgX3 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Isolated polypeptide, Mrg, which is a G-protein coupled receptor an isolated polypeptide, drg-12, which is also a receptor, useful for identifying agonists or antagonists for treating pain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-MAY-2000; 2000US-022027P.
01-AUG-2000; 2000US-0222344P.
03-NOV-2000; 2000US-00704707.
19-APR-2001; 2001US-0285493P.
                                                                                                                                                                                                           Sequence 322 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 16; Page 130; 185pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Anderson DJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               04-MAY-2001; 2001WO-US014519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  08-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           receptor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human MrgX3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAE21296;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAE21296 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (CALY ) CALIFORNIA INST OF TECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2002-171346/22.
)B; AAD33751.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       256
mas-related gene; G-protein coupled receptor; drg-12
or; sensory perception; pain; analgesic; MrgX3.
                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VDEGGGWLPQETLELSGSRLEQ 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VDEGGGWLPQETLELSGSRLEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RIHLDWKVLFCHVHLVSIFLSALNSSANFIIYFFVGSFRQRQNRQNLKLVLQRALQDTFB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IAWLVFLCVVLCGSSLVLLVRILCGSRKWPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILBWMFCDFLFSGADSVWCETSDFIT
                                                                                                       95.5%;
ilarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (mas-related gene)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Dong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Zylka
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  322
                                                                                                       0
                                                                                                    Score 322; DB 5; Li
Pred. No. 2.9e-309;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Σ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ₿
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Han
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Simon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3
                                                                                                                                                        Length 322;
                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein;
                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             an
        60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                          0
```

```
RESULT 5
AD116993
ID AD16993
ID AD1699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ર્શ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                  31-JAN-2001;
31-JAN-2001;
31-JAN-2001;
31-JAN-2001;
02-PEB-2001;
07-PEB-2001;
07-PEB-2001;
09-PEB-2001;
15-PEB-2001;
26-PEB-2001;
27-PEB-2001;
27-PEB-2001;
27-PEB-2001;
27-PEB-2001;
11-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             human; NOVX; cardiomyopathy; atherosclerosis; cancer; diabetes; inflammation; autoimmune disorder; allergy; blood disorder; acquired immunodeficiency syndrome; AIDS; obesity; asthma; immunoglobulin (Ig)A nephropathy; cirrhosis; arthritis; Alzheimer's disease; infection; str.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200268649-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human NOVX protein homologue SeqID 529.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15-APR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADI16993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADI16993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VDEGGGWLPQETLELSGSRLEQ 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
               2001US-0265395

2001US-0265412P

2001US-0265517P

2001US-0266406P

2001US-0266767P

2001US-0267959

2001US-0267959

2001US-0267959

2001US-0267959

2001US-0267959

2001US-0271839P

2001US-0271839P

2001US-0271859P

2001US-02727888P

2001US-02727889P

2001US-02727899P

2001US-02727899P

2001US-0275947P

2001US-0275947P

2001US-0276448P

2001US-0276450P

2001US-0276769P

2001US-0276769P

2001US-0278652P

2001US-0278779P

2001US-0278779P

2001US-0278779P

2001US-027882P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2002WO-US002785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 255
```

```
11-APR-2001

20-APR-2001

23-APR-2001

03-MAY-2001

03-MAY-2001

03-MAY-2001

10-JUN-2001

10-JUN-2001

11-JUN-2001

11-JU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001US-0279884P.
2001US-0282992P.
2001US-0283083P.
2001US-0285133P.
2001US-0285749P.
2001US-0288504P.
2001US-0294473P.
2001US-0294473P.
2001US-029959P.
2001US-029959P.
2001US-0312809P.
2001US-0313470P.
2001US-0318747P.
2001US-031874P.
2001US-0333379P.
2001US-03333008P.
2001US-033333008P.
```

(CURA-) CURAGEN CORP

Tchernev VT. Spytek KA, Zerhusen BD, Patturajan M, Li L, Gangolli EA, Padigaru M, Anderson DW, Raste Gerlach VI, Taupier RJ, Gusev VY, Colman SD, Wole: Furtak K, Grosse WM, Alsobrook JP, Lepley DM, Rie: njan M, Shimkets RA; Rastelli L, Miller CE; Wolenc AR, Pena CEA; M, Rieger DK, Burgess CI Pena CEA; Burgess CE;

WPI; 2002-706998/76.

New NOVX polypeptides and nucleic acids, useful for preventing or treating NOVX-associated disorders, e.g. cancer, cardiomyopathy, atherosclerosis, or diabetes, and in chromosome mapping, tissue typing pharmacogenomics. õ

Disclosure; SEQ ID NO 529; 1498pp; English

This invention relates to a novel nucleic acids, and encoded polypeptides CC thereof, which have properties related to the stimulation of biochemical CC or physiological responses in a cell, tissue, organ or organism. CC Specifically, it refers to the use of biologically active fragments for CC diagnostic and prognostic assays and furthermore in the treatment of CC diverse pathological conditions. The present invention describes novel human and murine NOVX proteins, as well as methods to modulate their CC expression using antisense oligos, ribozymes and peptide nucleic acids. CC The NOVX polypeptides, polymucleotides and antibodies are useful in CC treating or preventing NOVX-associated disorders, e.g. cardiomyopathy, cc atherosclerosis, cancer and diabetes. Furthermore, they may be used in treating or preventing diseases such as inflammation, autoimmune CC disorders, allergies, blood disorders, acquired immunodeficiency syndrome CC (AIDS), obesity, asthma, immunoglobulin (Ig)A nephropathy, cirrhosis, CC arthritis, Alzheimer's disease, infections, stroke, muscular dystrophy CC and epilepsy. Accordingly, these molecules have many activities including CC cytostatic, anti-HIV, antidiabetic, antiarteriosclerotic, antiparasitic, cartistatic, antiparasitic, antiparas pharmacogenomics. of the invention.

Sequence

Query Match

95 .5%; Score 322; 멂 5 Length

Best Local Similarity

2.9e-309;

```
RESULT 6
AD114998
ID AD11
XX AD11
AC AD11
XX AD11
AC A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
  31-JAN-2001;
31-JAN-2001;
31-JAN-2001;
31-JAN-2001;
31-JAN-2001;
02-FEB-2001;
07-FEB-2001;
07-FEB-2001;
08-FEB-2001;
09-FEB-2001;
15-FEB-2001;
26-FEB-2001;
27-FEB-2001;
27-FEB-2001;
27-FEB-2001;
27-FEB-2001;
14-MAR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        human; NOVX; cardiomyopathy; atherosclerosis; cancer; diabetes; inflammation; autoimmune-disorder; allergy; blood disorder; acquired immunodeficiency syndrome; ALDS; obesity; asthma; immunoglobulin (Ig)A nephropathy; cirrhosis; arthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           31-JAN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Alzheimer's disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADI16998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200268649-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15-APR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NOVX protein homologue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MDSTIPVLGTELTPINGREETPCYKQTLSPTGLTCIVSLVALTGNAVVLWLLGCRWRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VDEGGGWLPQETLELSGSRLEQ 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IAMLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLXVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RIHLDWKVLFCHVHLVSIFLSALNSSANFIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
2001US-0265395P
2001US-0265414P
2001US-0265517P
2001US-0266767P
2001US-0266767P
2001US-0267679P
2001US-0267459P
2001US-0267823P
2001US-0267823P
2001US-0267823P
2001US-027839P
2001US-0271839P
2001US-0271839P
2001US-0271839P
2001US-0271839P
2001US-0271839P
2001US-0275947P
2001US-0275989P
2001US-0275989P
2001US-0275989P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2002WO-US002785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Pred. No. 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SeqID 534.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ₿
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
```

```
15-MAR-2001; 2001US-0276450P.
16-MAR-2001; 2001US-0276768P.
26-MAR-2001; 2001US-0278652P.
26-MAR-2001; 2001US-0278652P.
26-MAR-2001; 2001US-0278775P.
26-MAR-2001; 2001US-0279882P.
29-MAR-2001; 2001US-0279884P.
30-MAR-2001; 2001US-0280147P.
11-APR-2001; 2001US-02803983P.
20-APR-2001; 2001US-0285133P.
23-APR-2001; 2001US-0285133P.
23-APR-2001; 2001US-0285133P.
23-APR-2001; 2001US-0285133P.
23-APR-2001; 2001US-0285137P.
03-MAY-2001; 2001US-0286327P.
03-MAY-2001; 2001US-02940479.
18-UUN-2001; 2001US-029924473P.
18-UUN-2001; 2001US-0299324P.
19-UN-2001; 2001US-0299324P.
19-UN-2001; 2001US-021028959P.
16-AUG-2001; 2001US-03112899P.
16-AUG-2001; 2001US-0311240P.
31-AUG-2001; 2001US-03115470P.
31-AUG-2001; 2001US-03118118P.
07-SEP-2001; 2001US-0313900P.
31-AUG-2001; 2001US-0313900P.
31-AUG-2001; 2001US-031390P.
31-AUG-2001; 2001US-031390P.
31-AUG-2001; 2001US-031390P.
31-AUG-2001; 2001US-0318918P.
07-SEP-2001; 2001US-0318940P.
19-SEP-2001; 2001US-033390P.
18-OCT-2001; 2001US-033390P.
                                                                                                                                                                                                                                                                                                                                                                                                                             (CURA-) CURAGEN
                                                                                                                                                                                                                                                                                                                                                                                                                              CORP
```

Gerlach Tchernev VI, nev VT. Spytek KA, Zerhusen BD, Patturaj Gangglii EA, Padigaru M, Anderson DD, ih VL, Taupier RJ, Gusev VY, Colnan SD, K, Grosse WM, Alsobrook JP, Lepley DM, Patturajan M, Shimke rson DW, Rastelli L, olman SD, Wolenc AR, Lepley DM, Rieger DK, Shimkets Pena CEA; Miller CE; Burgess CE;

WPI; 2002-706998/76.

New NOVX polypeptides and nucleic acids, useful for preventing or treating NOVX-associated disorders, e.g. cancer, cardiomyopathy, atherosclerosis, or diabetes, and in chromosome mapping, tissue typing pharmacogenomics. õ

Disclosure; SEQ ID NO 534; 1498pp; English.

This invention relates to a novel nucleic acids, and encoded polypeptides thereof, which have properties related to the stimulation of biochemical CC or physiological responses in a cell, tissue, organ or organism. Specifically, it refers to the use of biologically active fragments for CC diagnostic and prognostic assays and furthermore in the treatment of CC diverse pathological conditions. The present invention describes novel human and murine NOVX proteins, as well as methods to modulate their CC repression using antisense oligos, ribozymes and peptide nucleic acids. The NOVX polypeptides, polynucleotides and antibodies are useful in CC The NOVX polypeptides, polynucleotides and antibodies are useful in CC treating or preventing NOVX-associated disorders, e.g. cardiomyopathy, CC atherosclerosis, cancer and diabetes. Furthermore, they may be used in treating or preventing diseases such as inflammation, autionmune CC disorders, allergies, blood disorders, acquired immunodeficiency syndrome CC arthritis, Alzheimer's disease, infections, stroke, muscular dystrophy CC arthritis, Alzheimer's disease, infections, stroke, muscular dystrophy and epilepsy. Accordingly, these molecules have many activities including CC creatant, antinflammatory, immunosuppressive, antiallergic, cantiasthmatic, mephrotropic, antiatretriosclerotic, antiaptrasitic, rephrotropic, antiaterial, virucide, antiparasitic, cantiastmatic, mephrotropic, antiaterial, virucide, antiparasitic, for example, and and anticonvulsant. In addition, they are useful in screening and antistored control of area also for example,

```
В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ភិព្គិន្តនុំ
ភូពិន្តនុំ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Simi
Matches 322;
  WPI; 200
N-PSDB;
                                                                                                                                                                                                                                                                                  Alzheimer's disease; atherosclerosis; infection; osteoarthritis; allergy; osteoporosis; cardiomyopathy; inflammation; Crohn's disease; diabetes; graft versus host disease; Parkinson's disease; multiple sclerosis; pain;
                                                                                                                                                                                                                                                                                                                       G protein-coupled receptor; GPCR; antigenic peptide; gene therapy; G protein-coupled receptor modulator; antibody; immune-related disease; growth-related disease; cell regeneration-related disease; AIDS; cancer; immunological-related cell proliferative disease; autoimmune disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   used as in chromosome mapping, tissue typing, preventive medicine and pharmacogenomics. This polypeptide is a homologue of a human NOVX protein of the invention.
                                                                                                                                                                                                                                            psoriasis; anxiety; depression; schizophrenia; dementia; memory loss; mental retardation; epilepsy; asthma; tuberculosis; obesity; nausea; hypertension; hypotension; renal disorder; rheumatoid arthritis; trau
                                         Burmer GC,
                                                                                                                      19-DEC-2001; 2001WO-US050107.
                                                                                                                                                  08-AUG-2002
                                                                                                                                                                                                                                 hypertension; hypotension; ulcer.
                                                                                                                                                                                                                                                                                                                                                                                               Human G
                                                                                                                                                                                                                                                                                                                                                                                                                        04-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABP81750 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 322
                                                                                             19-DEC-2000;
                                                                                                                                                                             WO200261087-A2
                                                                                                                                                                                                      Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABP81750
  2003-046718/04.
DB; ABZ42595.
                                                                                                                                                                                                      sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ш
                                                                    LIFESPAN BIOSCIENCES INC
                                                                                                                                                                                                                                                                                                                                                                                            protein-coupled receptor MrgX3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IAMLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQMALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRWERNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VDEGGGWLPQETLELSGSRLEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VSIYILMLVAADELFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VSIYILMLVAADFLFLSGHIICSFLRLINIRHPISKILSFVMTFFYFIGLSMLSAISTER 135
                                         Roush CL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     95.5%;
ilarity 100.0%;
Conservative (
                                                                                               2000US-0257144P.
                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 322; DB 5; Li
; Pred. No. 2.9e-309;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ₿
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                            protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                             SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                               NO:674.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
```

New isolated antigenic peptides e.g., for G protein-coupled receptors (GPCR), useful for diagnosing and designing drugs for treating conditions in which GPCRs are involved, e.g. AIDS, Alzheimer's disease, cancer or diseases.

Disclosure; Fig 1; 523pp; English

CC any one of 1601 sequences (see ABP82019 to ABP83619) of 12-24 amino CC acids. Also described: (1) an assay for the detection of a particular G CC protein-coupled receptor (GPCR) or a candidate polypeptide in a sample, CC and (2) an isolated antibody having high specificity and high affinity or CC avidity for a particular GPCR. (1) can be used as GPCR modulators and in CC gene therapy. The antigenic peptides for GPCRs are useful in detecting an CC antibody against a particular GPCR, and in the production of specific CC antibody against a particular GPCR, and in the production of specific CC antibodies. The peptides and antibodies are also useful for detecting the CC presence or absence of corresponding GPCRs. The antigenic peptides for CC presence or absence of corresponding GPCRs. The antigenic peptides for CC creating immune-related diseases, growth-related diseases, cell creating immune-related diseases, growth-related cell proliferative CC diseases, or autoimmune diseases, e.g. AIDS, Alzheimer's disease, CC atherosel-cosis, bacterial, fungal, protozoan or viral infections, content content of the content of t disease, Parkinson's disease, multiple sclerosis, pain, psoriasis, anxiety, depression, schizophrenia, dementia, mental retardation, memorioss, epilepsy, asthma, tuberculosis, obesity, nausea, hypertension, hypotension, renal disorders, rheumatoid arthritis, trauma, ulcers, or any other disorder in which GPCRs are involved. The antibodies may be used in immunoassays and immunodiagnosis. ABZ42523 to ABZ42869 encode GPCR proteins given in ABP81675 to ABB82018, which are used in the exemplification of the present invention memory

Query Match Best Local Sim Matches 322; Sequence Local Similarity 322 AA; 95.5%; ilarity 100.0%; Conservative Score 322; DB 6; Lo Pred. No. 2.9e-309; Length 322;

밁 8

```
241
                                                                                                     256
                                                                                                                                        181
                                                                                                                                                                         196
                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                136
                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                    76
                                                                                                                                                                                                                                                                                                                                                                                          16
                                                                                                                                                                                                                                                                                                                                                       \vdash
                                                                                                                                                                                                                                                                                                       VSIYILNIVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                      VDEGGGWLPQETLELSGSRLEQ
                                                                                      RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPB
                                                                                                                                      IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                             CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMPCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                         MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
VDEGGGWLPQETLELSGSRLEQ
                                                                  RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                         IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                              CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                     VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                       MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                             0,
322
                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                             <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                      300
                                                                                                       315
                                                                                                                                          240
                                                                                                                                                                           255
                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                 195
                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                      135
                                                                                                                                                                                                                                                                                                                                                         60
```

밁 S 밁 5 밁 S 밁 8

ADH08535 standard; protein;

ADH08535;

25-MAR-2004 (first entry)

MrgX3.

```
S
                                                                                                                                                                                 ફ
                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                      ঠ
                                                                                                   멍
                                                                                                                                                               밁
                                                                                                                                                                                                                   멍
                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Sim
Matches 322;
                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention relates to an isolated mas-related gene D (MrgD) polypeptide. The MrgD polypeptides are useful as therapeutics or for identifying compounds, i.e. agonists or antagonists, that alter pain perception in a mammal. The compounds are useful for treating impaired sensory perception, e.g. chronic intractable pain or neuropathic pain, promoting wound healing, restoring normal sensitivity following injury, or treating ocular conditions, particularly those associated with pressure such as glaucoma. The Mrg genes or proteins may be used as molecular probes for the detection of cells or tissues related to or involved with sensory perception. The present sequence represents a MrgA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New mas-related gene D polypeptides, useful as therapeutics or in identifying agonists or antagonists that alter pain perception in a mammal for treating impaired sensory perception, e.g. chronic intractable pain or neuropathic pain.
                                                                                                                                                                                                                                                                                                                                                                                       Sequence 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; SEQ ID NO 31; 220pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       08-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     mas-related gene D;
sensory perception;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Anderson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26-JUN-2002; 2002US-00183116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO2004003133-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (CALY ) CALIFORNIA INST OF TECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2004-083025/08.
DB; ADH08534.
                                                                                                                                                                                                                                                                                                                                                                                                                 subfamily)
301
                                                                                                          181
                                                                                                                                     196
                                                                                                                                                                 121
                                                                                                                                                                                         136
                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                        16 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                 76
                                                                                                                                                                                                                                                                           μ
                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2
VDEGGGWLPQETLELSGSRLEQ
                     VDEGGGWLPQETLELSGSRLEQ 337
                                                     RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                         RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPB
                                                                                                         CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                              CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMPCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                    VSIYILNLVAADFLFLSGHIICSFLRLINIRHPISKILSFVMTFFYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                           MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                    VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                       AA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2003WO-US015004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Dong
                                                                                                                                                                                                                                                                                                                                                                                                                  protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MrgD; Analgesi
glaucoma; Mrg.
                                                                                                                                                                                                                                                                                                                                             95.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Zylka M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Analgesic; Vulnerary; Ophthalmological;
                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                               Score 322;
Pred. No.
                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Han S,
                                                                                                                                                                                                                                                                                                                                                2.9e-309;
                                                                                                                                                                                                                                                                                                                                                            DB 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Simon MI;
                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                          Length 322
                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                Gaps
                                                                               315
                                                                                                                                                                                           195
                                                                                                                                                                                                                                                 135
                                                                                                                                                                                                                                                                           60
                                                                                                          240
                                                                                                                                     255
                                                                                                                                                                 180
                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                       75
                                                                                                                                                                                                                                                                                                                                  0
```

RESULT 9

밁

300

```
5
                                                밁
                                                                       Ş
                                                                                                    밁
                                                                                                                         श्
                                                                                                                                                     밁
                                                                                                                                                                            S
                                                                                                                                                                                                       밁
                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                 The invention relates to a non-human mammal that carries a DNA integrated with a foreign HI77213 or its mutant gene, or a part of it. The non-human animal is particularly a rat. Such gene shows phenotypes of e.g. cataract conset, transient skin rash and proliferation-promoting activity. The foreign HI77213 gene is a gene that encodes a G protein-coupled receptor (GPCR) protein HI77213. The protein, its encoded DNA and constructed transgenic animals are useful for clarifying pathological mechanism, developing therapeutic methods and screening preventives or remedies for related diseases e.g. cataract, cancer, and dermatitis. The present sequence represents a human HI77213 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HI7T213 protein, encoded DNA and transgenic animals for clarifying pathological mechanism, developing therapeutic methods and screening preventives or remedies for related diseases e.g. cataract, cancer, a preventives or remedies for related diseases e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HI7T213; transgenic; G protein-coupled receptor; GPCR; ophthalmological; cytostatic; nephrotropic; antiinflammatory; dermatological; analgesic; vulnerary; neuroprotective; human; receptor.
                                                                                                                                                                                                                                                                                                           Sequence 322 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29-OCT-2002; 2002JP-00314141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28-OCT-2003; 2003WO-JP013781.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO2004039972-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human HI7T213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADO44602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADO44602 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (TAKE ) TAKEDA CHEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2004-376191/35.
                                                                                                    121
                        256
                                                 181
                                                                           196
                                                                                                                           136
                                                                                                                                                                                                                                                          322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>ب</u>
                                                                                                                                                   16 MDSTIPVLGTELTPINGREETPCYKQTLSPTGLTCIVSLVALITGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                        ۰
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ĸ
                                                                                                  CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
            RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                SEQ ID
RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                        MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NO 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'n
                                                                                                                                                                                                                                                                      95.5%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              161pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Yasuhara
                                                                                                                                                                                                                                                      0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              322
                                                                                                                                                                                                                                                                    Score 322; DB 8; L
Pred. No. 2.9e-309;
                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ያ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mori I,
                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Taketomi
                                                                                                                                                                                                                                                                                  Length 322;
                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               s
                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        and
                         315
                                                   240
                                                                                                                                                                                 135
                                                                            255
                                                                                                      180
                                                                                                                              195
                                                                                                                                                       120
                                                                                                                                                                                                           60
```

S

```
RESULT 10
AD029705
ID AD029705
AC AD029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                         mouse comprising a GPCR gene of the invention; a mouse comprising a mutation in a GPCR transgene or in an endogenous GPCR gene; cells derived from the transgenic mice; kits comprising several mice, each of which has a mutation in a different GPCR gene of the invention; and kits comprising probes which hybridise to GPCR polymucleotides for the invention. The invention further discloses variants of the GPCR polympetides and vectors comprising a GPCR nucleic acid. The GPCR nucleic acids and proteins may be used in the diagnosis, treatment or prevention of a wide variety of the comprising the diagnosis of the GPCR nucleic acids and proteins may be used in the diagnosis, treatment or prevention of a wide variety of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               G protein-coupled receptor; GPCR; drug screening; diagnosis; transgenic mouse; neurological disorder; adrenal gland disorder; colon disorder; intestinal disorder; cardiovascular disorder; muscular disorder; blood disorder; immune disorder; desorder; joint disorder; metabolic disorder; intritive disorder; cancer; kidney disorder; uterus disorder; lung disorder; breast disorder; kidney disorder; uterus disorder; prostate disorder; testis disorder; skin disorder; stomach disorder; pancreas disorder; spleen disorder; thymus disorder; thyroid disorder; antiparkinsonian; antimanic; cytostatic; antiinflammatory; vasotropic; antianginal; antiarrhythmic; virucide; hepatotropic; antibacterial; antianaemic; antiseborrhoeic; dermatological; antiulcer; antibacterial; antianaemic; anotetic;
                                                                                                                                                                                                                                                                                                                                  The invention relates to human and mouse G protein-coupled receptors (GPCRs) and nucleic acids encoding them. The invention also relates to sequences at least 90% identical to the GPCR proteins and nucleic acids of the invention; methods of treating, preventing or diagnosing diseases associated with GPCRs of the invention; methods of screening for compounds useful in the treatment of GPCR-related diseases; a transgenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel mammalian G protein coupled receptors, useful for identifying compounds that modulates diagnosing and treating disease condition associated with GPCR dysfunction e.g. autoimmune diseases, angina
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaitanaris GA, Bergm
Madisen L, Mcilwain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09-SEP-2002; 2002US-0409303P.
09-APR-2003; 2003US-0461329P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 151; SEQ ID NO 807; 542pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2004-390329/36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     09-SEP-2003; 2003WO-US028226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human GPCR MRGX3,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADO29705;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADO29705 standard; protein; 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (PRIM-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO2004040000-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   29-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    immunosuppressive; nephrotropic; gene therapy; GPCR modulator; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIMAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VDEGGGWLPQETLELSGSRLEQ 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bergmann JE, Gragerov A, Hohmann J, lwain KL, Pavlova MN, Vassilatis D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO:807.
                  neurological
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entry)
                      disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Li F;
Zeng H;
```

```
ADF70481
ID ADF70
XX 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CC depression, diabetic neuropathy, Parkinson's disease or schizophrenia);
CC disorders of the adrenal gland; disorders of the colon or intestine
CC (e.g., Crohn's disease, diarrhoea, food poisoning or irritable bowel)
CC syndrome); cardiovascular disorders (e.g., angina, cardiac arrhythmia or
CC myocardial infarction); muscular disorders, blood disorders (e.g.,
CC anaemia or leukaemia); immune disorders (e.g., autoimmune disorders or
CC AIDS); bone and joint disorders (e.g., osteoarthritis, rheumatoid
CC orthritis, gout or osteoporosis); metabolic or nutritive disorders (e.g.,
CC obesity, enzyme deficiency-related diseases or vitamin deficiency-related
CC diseases); and disorders of the kidney, liver, lung, breast, ovary,
CC uterus, prostate, testis, skin, stomach, pancreas, spleen, thymus and
CC thyroid (e.g., cancers). The present sequence represents a GPCR of the
CC invention. Note: The full sequence data for this patent did not form part
CC of the printed specification; those sequences not shown were obtained in
CC electronic format directly from WIPO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Sim Matches 322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
22-FEB-2002;
23-JUL-2002;
11-OCT-2002;
                                                                                                                                                                                                                                                                                                                                                                             ligand; orphan receptor protein; fusion protein; fluorescent protein; cell expression; green fluorescent protein; GFP; GFP-1; wild-type GFPuv; Enhanced GFP; EGFP; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Orphan receptor ligand-related human protein SeqID104.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADF70481 standard; protein; 560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 322 AA;
                                                                                                                        21-FEB-2003;
                                                                                                                                                                                                                                                    WO2003071272-A1
                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12-FEB-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADF70481;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VDEGGGWLPQETLELSGSRLEQ 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VDEGGGWLPQETLELSGSRLEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
2002JP-00045728.
2002JP-00213949.
2002JP-00298237.
                                                                                                                            2003WO-JP001901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      95.5%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 322; DB 8; L; Pred. No. 2.9e-309;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
```

```
RESULT 12
ADF29105
ID ADF29
XX ADF29
XX ADF29
XX ADF29
XX ADF29
XX Human
XX Human
XX Human
XX Urabe
KW Crabe
KW Ocula
XX OSUA
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 95.5
Best Local Similarity 100.
Matches 322; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This invention relates to a novel method of identifying ligands to an orphan receptor protein which comprises transforming cells with DNA encoding a fusion protein of the orphan receptor with a fluorescent protein, so that the fusion protein is expressed in the cells (or cell membranes isolated from them) and contacting the cells with the potential ligand to be tested. A suitable fluorescent protein for incorporation in the fusion protein is green fluorescent protein (GFP), for example GFP-1, wild-type GFP, GFPuv or Enhanced GFP (EGFP). The method is useful for the identification of ligands binding to an orphan receptor protein.
                                                        Human; R-14; GPCR; G protein coupled receptor; trabecular meshwork tissue; ocular outflow; antagonist; ocular hypotensive; drug screening; elevated intraocular pressure; glaucoma; ophthalmological; receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Transformation of cells with a fusion protein protein with a fluorescent protein useful for to the orphan receptor.
                                                                                                                                       Human GPCR R-14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; SEQ ID NO 104; 594pp; Japanese.
                             Homo sapiens
                                                                                                                                                                                                 ADF29105
                                                                                                                                                                                                                               ADF29105 standard;
   WO2003080659-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (TAKE ) TAKEDA CHEM IND LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2003-697654/66.
                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                        316 VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDPLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ß
                                                                                                                                                                                                                                                                                                                                                                   RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                    RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPB
                                                                                                                                                                                                                                                                                                                                                                                                                              IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                              IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMPCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                         VDEGGGWLPQETLELSGSRLEQ 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Fujii R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Α
                                                                                                                                                                   (first
                                                                                                                                                                                                                            protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     95.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                               322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 322;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Komatsu H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4.9e-309;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Kawamata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               of an orphan receptor identification of ligands
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ĸ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Новоуа
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60
                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                            255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      195
```

```
RESULT 13
AAB14846
ID AAB14
XX
AC AAB14
XX
DT 19-DE
XX
XX
Human
XX
Human
                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                         片
                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local S
Matches 277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14 peptide antagonists (ADP29106-ADP29108). The invention also encompasses vectors and host cells comprising R-14 nucleic acids, and methods of screening for R-14 antagonists. The R-14 receptor is expressed in trabecular meshwork tissue, and is associated with a role in ocular outflow. Inhibition of the receptor results in a reduction of basal intracocular pressure, making the R-14 receptor a useful target for screening for ocular hypotensive drugs. The R-14 peptide antagonists are useful for reducing intraocular pressure for the treatment of conditions associated with elevated intraocular pressure such as glaucoma and related conditions. The R-14 receptor, and host cells expressing an R-14 polynucleotide, may be used in screening for R-14 receptor antagonists. The present sequence is related to the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 322 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            designated R-14 (ADF29105), nucleic acids encoding it 14 peptide antagonists (ADF29106-ADF29108). The invent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to a human GPCR (G protein coupled receptor) designated R-14 (ADF29105), nucleic acids encoding it (ADF29104),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       glaucoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New substantially pure R-14 polypeptide, useful as drug targets for lowering intraocular pressure and for treating condition such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     27-MAR-2002; 2002US-0367513P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        27-MAR-2003; 2003WO-CA000444.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           02-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2004-053019/05
)B; ADF29104.
                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                          166
                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                      226
                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                 106 YFIGLSMLSAISTERCLSILWFIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           277;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    THERATECHNOLOGIES INC
                                                                                                                                                                                                                                                     NLKLVLQRALQDTPEVDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                         LLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQ
                                                                                                                                                                                                                                                                                                                                                                                             SGADSVWCETSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKMFLTRLYVTILLTVLVF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AVVLWLLGCRMRRNAVSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AVVLWLLGCRWRRNAVSIYILNLVAADPLFLSGHIICSPLRLINIRHPISKILSPVWTFP
                                                                                                                                                                                                                                                                                                                                                                          SGADSVWCETSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVF
                                                                                                                                                                                                                                                                                                      LLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO 2; 85pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   82.2%; Score 277; DB 8; Lilarity 100.0%; Pred. No. 8.6e-265; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    and
```

77

Human; novel G-protein coupled receptor; signal transduction;

Human novel G-protein coupled receptor #1

19-DEC-2000

(first

entry)

AAB14846 standard;

protein;

285 300 225 165 180 105

```
RESULT 14
AAY90762
ID AAY90
XX
AC AAY90
AC AAY90
XX
DT 18-AU
XX
DT Humar
XW Humar
XW Genet
XX
OS Homo
                                                                                                                                                                                              8
                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                        र्
                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local S
Matches 224
                                                                                                                                                                                                                                                                                                                                                                                                                The present sequence is the protein sequence for a novel human G-protein coupled receptor (NGPCR). These proteins are involved in signal transduction pathways in many cases. The protein contains seven transmembrane domains, and is expressed in human testis, mammary gland and salivary gland tissue. The protein, its gene, agonists, antagonists and antibodies can be used to diagnose and treat diseases associated with the inappropriate expression or expression of mutant versions of the protein, for screening for drugs which can be used in the same manner, and for elucidating the function of the protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New polynucleotides encoding novel G-protein coupled receptors useful diagnosis, drug screening, clinical trial monitoring and for the treatment of physiological or behavioral disorders.
                            Human; G protein-coupled receptor; hippocampus; genetic disease; cellular function regulation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2000-465986/40
N-PSDB; AAA70342.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                04-JAN-1999;
14-JAN-1999;
                                                            Human G protein-coupled receptor hHI7T213V SEQ ID NO:2.
                                                                                   18-AUG-2000
                                                                                                                           AAY90762 standard; protein; 322
                                                                                                                                                                                                                                                                                                                                                                                              Sequence 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Page 53-54; 61pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               04-JAN-2000; 2000WO-US000052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Nehls M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200040724-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 disease diagnosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (LEXI-) LEXICON GENETICS INC
                                                                                                                                                                                                                                                                                                                                                    / Match 66.5%; Sc
Local Similarity 100.0%; P
les 224; Conservative 0;
                                                                                                                                                                                                                         203
                                                                                                                                                                                                                                                                   143
                                                                                                                                                                                                                                              218
                                                                                                                                                                                                                                                                                       158
                                                                                                                                                                                                                                                                                                            83
                                                                                                                                                                                                                                                                                                                                98
                                                                                                                                                                                            LNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPEVDEGGG
                                                                                                                                                                                                                                                                                                           SPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTERCLSILWFIWYHCRRPRYLSSVM
                                                                                                                                                                                                                         LCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSA
                                                                                                                                                                                                                                   LCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQMALFSRIHLDWKVLFCHVHLVSIFLSA
                                                                                                                                                                                                                                                                   CVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFITIAWLVFLCVVLCGSSLVLLVRI
                                                                                                                                                                                                                                                                                      CVLLWALSILEWMFCDFLFSGADSVWCETSDFITIAWLVFLCVVLCGSSLVLLVRI
                                                                                                                                                                                LNSSANPITYFFVGSFRQRQNRQNLKLVLQRALQDTPEVDEGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Wattler F
                                                                                                                                                                                                                                                                                                                                                                                               ă,
                                                                                   (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99US-0114666P.
99US-0115828P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   drug
                                                                                   entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   screening; disease therapy.
                                                                                                                                                                                                                                                                                                                                                     Score 224; DB; Pred. No. 2.1
0; Mismatches
                                                                                                                             ₿
                                                                                                                                                                                                                                                                                                                                                             2.1e-212;
                                                                                                                                                                                                                                                                                                                                                                          DB 3;
                                                                                                                                                                                                                                                                                                                                                     0
                                       diagnosis;
                                                                                                                                                                                                                                                                                                                                                                         Length 322;
                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                306
                                                                                                                                                                                                    321
                                         screening
                                                                                                                                                                                                                                                                                                                                                     <u>,</u>
                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                      217
                                                                                                                                                                                                                         262
                                                                                                                                                                                                                                                                                                           142
                                                                                                                                                                                                                                              277
                                                                                                                                                                                                                                                                   202
                                                                                                                                                                                                                                                                                                                                                     0
         RESULT 15
ADI16994
ID ADI16
XX
AC ADI16
XX
DT 15-AF
                                                                                                                                                밁
                                                                                                                                                                  S
                                                                                                                                                                                          밁
                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                      멹
                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                          Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                    Query Match
           15-APR-2004
                               ADI16994;
                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 322 AA;
                                                    ADI16994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2000-303747/26.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Watanabe T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200020455-A1
                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
                                                                                                        301
                                                                                                                           316
                                                                                                                                                241
                                                                                                                                                                     256
                                                                                                                                                                                           181
                                                                                                                                                                                                               196
                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                        136
                                                                                                                                                                                                                                                                                                                                                                321;
                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                 76
                                                                                                                                                                                                                                                                                                                      Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAA29812.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TAKEDA CHEM IND
                                                 standard; protein; 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Terao Y,
           (first
           entry)
```

```
The present sequence represents a human-derived G protein-coupled protein designated hHI77213V, which is isolated from the human hippocampus. The G protein-coupled receptor can be used for preventing, treating and diagnosing genetic diseases associated with G protein-coupled protein, and for regulating cellular functions. The protein can be used to prevent and treat disorders associated with G protein-coupled protein gene dysfunction. It can also be used to identify G protein-coupled protein ligands and generating antibodies and antisera against the protein ligands and generating antibodies and antisera against the protein. It is also useful in constructing recombinant receptor protein expression systems, developing receptor-binding assystems and screening drug candidates, and can be used as a probe in the genetic diagnosis of G protein-coupled protein disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human-derived G protein-coupled protein and encoding nucleic acid, useful e.g. in determining ligands and treatment of diseases associated with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 2; Page 92-93; 97pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       dysfunction of the protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 135
                                                       VDEGGGWLPQETLELSGSRLEQ
                                                                                                                                       RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                              RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPB
                                                                                                                                                                                                                                                                                                                                                                                                         CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
VDEGGGWLPQETLELSGSRLEQ 322
                                                                                                                                                                                                                                                                        IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                               IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98JP-00279535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-JP005366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           65.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matsui H;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 221; DB 3;
Pred. No. 1.9e-209;
                                                                  337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                       300
                                                                                                                                                                                                          315
                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                       255
                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 75
```

```
08-FEB-2001
15-FEB-2001
26-FEB-2001
27-FEB-2001
27-FEB-2001
27-FEB-2001
27-FEB-2001
27-FEB-2001
14-MAR-2001
14-MAR-2001
14-MAR-2001
15-MAR-2001
16-MAR-2001
16-MAR-2001
16-MAR-2001
26-MAR-2001
26-MAR-2001
26-MAR-2001
27-MAR-2001
28-MAR-2001
29-MAR-2001
29-MAR-2001
29-MAR-2001
29-MAR-2001
29-MAR-2001
21-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  human; NOVX; cardiomyopathy; atherosclerosis; cancer; diabetes; inflammation; autoimmune disorder; allergy; blood disorder; acquired immunodeficiency syndrome; AIDS; obesity; asthma; immunoglobulin (Ig)A nephropathy; cirrhosis; arthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         31-JAN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Alzheimer's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NOVX protein homologue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    disease;
                          2001US-0265412P

2001US-0265514P

2001US-0265514P

2001US-0265514P

2001US-026576P

2001US-0266976P

2001US-0267823P

2001US-0271835P

2001US-0271835P

2001US-0275950P

2001US-0275950P

2001US-0275950P

2001US-0275950P

2001US-0275950P

2001US-0276450P

2001US-0276450P

2001US-0276450P

2001US-02778676P

2001US-02778778P

2001US-0278678P

2001US-0278678P

2001US-028832P

2001US-0312844P

2001US-031284P

2001US-0313390P

2001US-031874P

2001US-033379P

2001US-033379P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2002WO-US002785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SeqID 530
```

Tchernev VT, Spytek KA, Zerhusen BD Li L, Gangolli EA, Padigaru M, And Gerlach VL, Taupier RJ, Gusev VY, Furtak K, Grosse WM, Alsobrook JP, Anderson DW, R VY, Colman SD, JP, Lepley DM, BD, Patturajan M, Rastelli L, , Wolenc AR, , Rieger DK, Shimkets RA; li L, Miller CB; Pena CEA; Burgess CE;

2002-706998/76

New NOVX polypeptides and nucl treating NOVX-associated disor atherosclerosis, or diabetes, pharmacogenomics. d nucleic acids, useful for preventing or disorders, e.g. cancer, cardiomyopathy, stes, and in chromosome mapping, tissue typing 9

Disclosure; SEQ ID NO 530; 1498pp; English

CC or physiological responses in a cell, tissue, organ or organism.

CC Specifically, it refers to the use of biologically active fragments for CC diverse pathological conditions. The present invention describes novel thuman and murine NOVX proteins, as well as methods to modulate their CC expression using antisense oligos, riboxymes and peptide nucleic acids. The NOVX polypeptides, polynucleotides and antibodies are useful in CC treating or preventing NOVX-associated disorders, e.g. cardiomyopathy, CC atherosclerosis, cancer and diabetes. Furthermore, they may be used in CC treating or preventing diseases such as inflammation, autoimmune CC disorders, allergies, blood disorders, acquired immunodeficiency syndrome CC (AIDS), obesity, asthma, immunoglobulin (Ig)A nephropathy, cirrhosis, CC arthritis, Alzheimer's disease, infections, stroke, muscular dystrophy CC and epilepsy. Accordingly, these molecules have many activities including CC cytostatic, anti-HIV, antidiabetic, antiarteriosclerotic, anorectic, correspondentive, nootropic, antisarthritic, hepatotropic, antisarthritic, hepatotropic, antisarterial, virucide, antiparasitic, crelaxant and anticonvulsant. In addition, they are useful in screening CC assays to identify small molecules that modulate or inhibit, for example, cof the invention. This polypeptide is a homologue of a human NOVX protein of the invention. This invention thereof, which relates to a novel nucleic acids, and encoded have properties related to the stimulation of polypeptides biochemical

Sequence 322 AA;

Query Match Best Local :

Similarity

65.6%;

221; DB 5; No. 1.9e-209;

Length 322;

δ ঠ δ δ 밁 S 문 맑 밁 片 S Matches 316 241 196 121 301 256 181 136 321; 19 76 16 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCCKMERNA VDEGGGWLPQETLELSGSRLEQ RIHLDWKVLFCHVHLVSIFLSALNSSANDIIYFFVGSFRQRQNRQNLKLVLQRALQDTPB CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMPCDPLFSGANSVWCETSDFIT VDEGGGWLPQETLELSGSRLEQ RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPB Conservative Score 221; DB Pred. No. 1.9e 0; Mismatches 0 337 Indels 0, Gaps 300 180 195 120 135 60 75 240 0

(CURA-)

CURAGEN

Search completed: October 27, 2004, 08:48:14 Job time : 156 secs

Run

```
Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OM protein -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Post-processing: Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Word size :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OLIGO
Gapop 60.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-867-570-2
337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   October 27, 2004, 08:43:04 ; Search time 41 Seconds (without alignments) 545.102 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          478139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Issued_Patents_AA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MESKSSWVIRLGFLSMDSTI.....
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /cgn2 6/ptcdata/1/iaa/5A_COMB.pep:*
/cgn2 6/ptcdata/1/iaa/5B_COMB.pep:*
/cgn2 6/ptcdata/1/iaa/6A_COMB.pep:*
/cgn2 6/ptcdata/1/iaa/6B_COMB.pep:*
/cgn2 6/ptcdata/1/iaa/6B_COMB.pep:*
/cgn2 6/ptcdata/1/iaa/backfiles1.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        seqs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GenCore version 5.1.6 (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gapext 60.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          66318000 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 멂
US-09-254-227A-3
US-09-254-227A-5
US-09-254-227A-7
US-09-254-227A-1
US-09-254-227A-1
US-09-254-227A-1
US-09-254-227A-1
US-09-254-227A-1
US-09-254-227A-1
US-09-489-039A-10936
US-09-489-039A-10936
US-09-489-039A-10936
US-09-489-039A-10936
US-09-489-039A-10936
US-09-489-038-15
US-09-489-134-01C-3801
US-09-134-01C-3801
US-09-135-917-19
US-08-055-917-19
US-08-055-917-19
US-08-055-917-11
US-08-055-917-11
US-08-055-917-14
US-08-055-917-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         . EGGGWLPQBTLELSGSRLEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Description
                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                          Sequence
Sequence
Sequence
                                                                                                                                                               Sequence
Sequence
                                                                                                                                                                                                                       Sequence
Sequence
                                                                                                                                                                                                                                                                              Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
Sequence
                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                         Sequence
                                                                Sequence
                                                                                                                         Sequence
                                                                                                                                          Sequence
                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                   Sequence
                      3 Appli

5 Appli

6 Appli

7 Appli

8 Appli

11 Appli

12 Appli

13 Appli

14 Appli

15 Appli

21 Appli

21 Appli

21 Appli

22 Appli

23 Appli

24 Appli

25 Appli

26 Appli

27 Appli

28 Appli

29 Appli

20 Appli

21 Appli

22 Appli

23 Appli

24 Appli

25 Appli

26 Appli

27 Appli

28 Appli

29 Appli

29 Appli

20 Appli

21 Appli

22 Appli

23 Appli

24 Appli

25 Appli

26 Appli

27 Appli

28 Appli

29 Appli

29 Appli

20 Appli

21 Appli

21 Appli

22 Appli

23 Appli

24 Appli

25 Appli

26 Appli

27 Appli

28 Appli

29 Appli

29 Appli

20 Appli

21 Appli

21 Appli

21 Appli

22 Appli

23 Appli

24 Appli

25 Appli

26 Appli

27 Appli

28 Appli

29 Appli

29 Appli

20 Appli

21 Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 3, Application US/09254227A

Patent No. 6696257

Patent INPORMATION:

APPLICANT: Ahmad, Sultan
APPLICANT: Banville, Denis

APPLICANT: Hembo, Paola

APPLICANT: O'Donnell, Dajan
APPLICANT: Shi-Hsiang, Shen
ITITLE OF INVESTION: G Protein-Coupled Receptors from the Rat
FILE REFERENCE: 81823/268117

CURRENT APPLICATION NUMBER: US/09/254,227A

LUMBER OF SOIL NOS. 29-03-03
  ; Sequence 5, Application US/09254227A
Patent No. 6696257
; GENERAL INFORMATION:
; APPLICANT: Ahmad, Sultan
; APPLICANT: Banville, Denis
; APPLICANT: Fortin, Yves
; APPLICANT: Lembo, Paola
; APPLICANT: O'Donnell, Dajan
                                                                                                                                                               RESULT 2
US-09-254-227A-5
                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; TYPE: PRT
; ORGANISM: Homo
US-09-254-227A-3
                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                      吊
                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-254-227A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQ ID NOS: 22
SOFTWARE: PatentIn version 3.0
SEQ ID NO 3
LENGTH: 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches 149;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 230
Fortin, Yves
Lembo, Paola
O'Donnell, Dajan
```

Rat

and

Human

Result

ŏ

Minimum Maximum

7 2.1 65 1 US-08-05-068-14 7 2.1 65 1 US-08-05-068-14 7 2.1 65 1 US-08-095-068-16 7 2.1 65 1 US-08-140-721A-16 7 2.1 65 1 US-08-619-790C-14 7 2.1 65 1 US-08-619-790C-16 7 2.1 65 1 US-08-619-790C-16 7 2.1 65 2 US-07-785-565A-16 7 2.1 65 2 US-07-785-565A-16	8 9 0 1 G M 4 B 6 F 8 9 0 1 G M 4
2.1 65 1 US-08-619-790C- 2.1 65 2 US-07-785-565A- 2.1 65 2 US-07-785-565A-	
2.1 71 1 US-08-055-917-15 2.1 71 1 US-08-055-917-17 3 1 71 1 US-08-085-068-15	
2.1 71 1 US-08-055-917-15 2.1 71 1 US-08-055-917-17 2.1 71 1 US-08-095-068-17 2.1 71 1 US-08-095-068-17	
2.1 71 1 US-08-055-917-15 2.1 71 1 US-08-055-917-17 2.1 71 1 US-08-095-068-17 2.1 71 1 US-08-095-068-17 2.1 71 1 US-08-140-721A-1	
2.1 71 US-08-055-917-15 2.1 71 US-08-055-917-17 2.1 71 US-08-055-068-17 2.1 71 US-08-095-068-17 2.1 71 US-08-140-721A-1 2.1 71 US-08-140-721A-1 2.1 71 US-08-619-790C-1 2.1 71 US-08-619-790C-1	_
2.1 71 US-08-055-917-15 2.1 71 US-08-055-917-17 2.1 71 US-08-095-068-17 2.1 71 US-08-095-068-17 2.1 71 US-08-140-721A-1 2.1 71 US-08-140-721A-1 2.1 71 US-08-1619-790C-1 2.1 71 US-08-619-790C-1 2.1 71 US-08-619-790C-1	

## ALIGNMENTS

```
245 LPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKL
                                                                                                                                                                    185 SVMCETSDFITIAMLVFLCVVLCGSSLVLLLVRILCGSRKMPLTRLYVTILLTVLVFLLCG
                                                                                                                                                170 SVWCETSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCG
                                                                       LPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIVFFVGSFRQRQNRQNLKL
                                                                                                                                                                                                                      44.2%; Score 149; DB 4; Li
ilarity 100.0%; Pred. No. 4.4e-134;
Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                              Length 322;
                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                           0
                                                                                                                                                                                                                          Gaps
                                                                                                             304
                                                                                                                                                  229
```

```
Patent No. 6696257:
GENERAL INFORMATION:
APPLICANT: Ahmad, St.
APPLICANT: Banville,
APPLICANT: Fortin, 1
APPLICANT: Lembo, P.
APPLICANT: O'Donnel:
                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 3
US-09-254-227A-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                           US-09-254-227A-7
                                                                                                                                                                                                                                                                                                 RESULT 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-254-227A-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO 9
LENGTH: 322
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 5
LENGTH: 322
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                     Sequence 7, Application US/09254227A Patent No. 6696257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 9, Application US/09254227A
Patent No. 6696257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
APPLICANT: Fortin, Yves
APPLICANT: Fembo, Paola
APPLICANT: Lembo, Paola
APPLICANT: O'Donnell, Dajan
APPLICANT: Shi-Hsiang, Shen
TITLE OF INVENTION: G Protein-Coupled Receptors
FILE REFERENCE: 81823/268117
CURRENT APPLICATION NUMBER: US/09/254,227A
TTRENT APPLICATION NUMBER: 05/09/254,227A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Fortin, Yves
APPLICANT: Lembo, Paola
APPLICANT: Lembo, Paola
APPLICANT: O'Donnell, Dajan
APPLICANT: Shi-Hsiang, Shen
TITLE OF INVENTION: G Protein-Coupled Receptors
FILE REFERENCE: 81823/268117
CURRENT APPLICATION NUMBER: US/09/254,227A
CURRENT FILING DATE: 1999-03-03
NUMBER OF SEQ ID NOS: 22
COUNTAINE: DESCRIPTION OF SEQ ID NOS: 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ·09-254-227A-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILE REFERENCE: 81823/268117
CURRENT APPLICATION NUMBER: US/09/254,227A
CURRENT FILING DATE: 1999-03-03
NUMBER OF SEQ ID NOS: 22
SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Shi-Hsiang, Shen
TITLE OF INVENTION: G Protein-Coupled Receptors from the Rat and Human
FILE REFERENCE: 81823/268117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                        Local 50;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION:
                                                                                                                                                                                                                                                                                                                                                          248 VLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQD 297
                                                                                                                                                                                                                                                                                                                                                                              263 VLFCHYHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQD 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      264 LFCHVHLVSIFLSALNSSANPIIYFF 289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              189 VVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDWKV 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  204 VVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDWKV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        86; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LFCHVHLVSIFLSALNSSANPIIYFF 274
                                                                                                                                                          Ahmad, Sultan
Banville, Denis
Fortin, Yves
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Banville, Denis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ahmad,
                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sultan
                                                                                                                                                                                                                                                                                                                                                                                                                                14.8%; Score 50; DB 4;
100.0%; Pred. No. 1.6e-3
tive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25.5%; Score 86; DB 4; L. 100.0%; Pred. No. 6.5e-74;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                    1.6e-39;
hes 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            from the Rat and Human
                                                                                  from
                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                  the
                                                                                                                                                                                                                                                                                                                                                                                                                                  <u>;</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                  and
                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                    0
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-254-227A-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-254-227A-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-254-227A-7
US-09-254-227A-13
                                                                                                                                                                                                                                                                                                                         US-09-254-227A-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 44; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS:
SOFTWARE: Patentin v
SEQ ID NO 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID NO 11
LENGTH: 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 11, Application US/09254227A Patent No. 6696257
                                                          SEQ ID NO 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                     Sequence 13, Application US/09254227A Patent No. 6696257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                                                                         GENERAL INFORMATION: APPLICANT: Ahmad,
                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Shi-Hsiang, Shen
TITLE OF INVENTION: G Protein-Coupled Receptors from the Rat and Human
FILE REFERENCE: B1823/268117
CURRENT APPLICATION NUMBER: US/09/254,227A
CURRENT FILING DATE: 1999-03-03
                                                                                                                               APPLICANT: Shi-Hsiang, Shen
TITLE OF INVENTION: G Protein-Coupled Receptors from the Rat and
FILE REFERENCE: 81823/266117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQ ID NOS: 22
SOFTWARE: PatentIn version 3.0
                                                                                                           CURRENT APPLICATION NUMBER: US/09/254,227A CURRENT FILING DATE: 1999-03-03
                                                                           SOFTWARE:
                                                                                          NUMBER OF SEQ ID NOS:
                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
             TYPE: PRT
ORGANISM: Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 322
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Homo sapiens
                                           LENGTH: 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                       209 SSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGI 249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              294 RORONRONLKLVLQRALQDTPEVDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                       194 SSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                      41;
                                                                                                                                                                    Fortin, Yves
Lembo, Paola
Lombo, Paola
O'Donnell, Dajan
''' uriang, Shen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RORONRONLKLVLORALODTPEVDEGGGWLPQETLELSGSRLEQ 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Banville, Denis
Fortin, Yves
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fortin, Yves
Lembo, Paola
O'Donnell, Dajan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PatentIn version 3.0
                                                                                                                                                                                                                         Banville, Denis
Fortin, Yves
                                                                             PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
             sapiens
                                                                                                                                                                                                                                                         Sultan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sultan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       13.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12.2%; Score 41; DB 4;
100.0%; Pred. No. 6.2e-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 44; DB 4; L. Pred. No. 8.4e-34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
```

12.2%;

Score 41;

DB 4;

Length 322;

```
; LENGTH: 337
; TYPE: PRT
; ORGANISM: rat
US-09-254-227A-1
TESULT 9
US-09-25-368-8
; Sequence 8, Application US/09255368
; Patent No. 6262246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Marches 11; Conservi
                                                                                              밁
                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-489-039A-10936
                                                                                                                                                                                                                      ŪS-09-489-039A-10936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-254-227A-1
                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
APPLICANT: Gary Breton et. al
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING
TITLE OF INVENTION: PNEUMONIAE FOR DIAGNOSTICS AND THERAPEUTICS
                                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS:
SEQ ID NO 10936
LENGTH: 773
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 10936, Application US/09489039A Patent No. 6610836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE:
SEQ ID NO 1
                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1, Application US/09254227A Patent No. 6696257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity 100 Matches 41; Conservative
                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: O'Donnell, Dajan
APPLICANT: Shi-Heiang, Shen
TITLE OF INVENTION: G Protein-Coupled Receptors from the Rat and Human
FILE REFERENCE: 81823/268117
CURRENT APPLICATION NUMBER: US/09/254,227A
CURRENT FILING DATE: 1999-03-03
                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/09/489,039A CURRENT FILING DATE: 2000-01-27 PRIOR APPLICATION NUMBER: US 60/117,747 PRIOR FILING DATE: 1999-01-29
                                                                                                                                                                                                                                                                                                                                                                             FILE REFERENCE: 2709.2004001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                 ORGANISM: Klebsiella pneumoniae
                                                                                                                                                                                                                                                   TYPE: PRT
                                                                                                                         271 VSIFLSALNS 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   128 LSAISTERCLS 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             194 SSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGI 234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             209 SSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGI 249
                                                                                                                                                        10;
                                                                                              VSIFLSALNS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Fortin, Yves
Lembo, Paola
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ahmad, Sultan
Banville, Denis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                        Conservative
                                                                                                                                                   100.0%; 1
                                                                                              532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Pred. No. 6.2e-31; tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       141
                                                                                                                                                                       ; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 11; DB 4;
Pred. No. 0.029;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                          Mismatches
                                                                                                                                                                     DB 4;
0.56;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 337;
                                                                                                                                                                                       Length 773;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                             TO KLEBSIELLA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
```

```
Query Match
Best Local Similarity
Matches 9; Conserva
                                                                                                                                                                                  문
                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; TYPE: PRT ; ORGANISM: Homo sapiens US-09-255-368-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 10
                                                                                                          US-08-978-404B-31
                                                                                                                            RESULT 11
                                                                                                                                                                                                                                                                                                                          ; ORGANISM: Homo sapiens
US-09-405-558-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-405-558-8
                                                                    Sequence 31, Application US/08978404B Patent No. 5968782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
APPLICANT: Gerald, Christophe P.G.
APPLICANT: Jones, Kenneth A.
APPLICANT: Bonini, James A.
APPLICANT: Borowsky, Beth E.
APPLICANT: Craig, Douglas A.
TITLE OF INVENTION: DNA Encoding Mammalian Neuropeptide FF
TITLE OF INVENTION: and Uses Thereof
FILE REFERENCE: 57155-C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: PatentIn Ver. 2.0 - beta SEQ ID NO 8
                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Ver.
SEQ ID NO 8
LENGTH: 430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 8, Application US/09405558A Patent No. 6709831
                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                      Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Stevens,
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/09/405,558A CURRENT FILING DATE: 1999-09-24 EARLIER APPLICATION NUMBER: 09/161,113 EARLIER FILING DATE: 1998-09-25 EARLIER APPLICATION NUMBER: 09/255,368 EARLIER FILING DATE: 1999-02-22 NUMBER OF SEQ ID NOS: 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/09/255,368
CURRENT FILING DATE: 1999-02-22
EARLIER APPLICATION NUMBER: 09/161,113
EARLIER FILING DATE: 1998-09-25
NUMBER OF SEQ ID NOS: 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Gerald, Christophe P.G.
APPLICANT: Jones, Kenneth A.
APPLICANT: Bonini, James A.
APPLICANT: Bonini, James A.
APPLICANT: Box Berowsky, Beth
TITLE OF INVENTION: DNA Encoding Mammalian Neuropeptide FF (NPFF) Receptors
TITLE OF INVENTION: and Uses Thereof
FILE REFERENCE: 1795/57155-A
                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               279 NSSANPIIY 287
                                                                                                                                                                                321 NSSANPITY 329
                                                                                                                                                                                                                  279 NSSAUPITY 287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     321 NSSANPITY 329
                                                                                                                                                                                                                                                 l Similarity
9; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2.7%;
                                                                                                                                                                                                                                                                      2.7%;
                    Richard L.
MAST CELL PROTEASE THAT CLEAVES
   FIBRINOGEN
                                                                                                                                                                                                                                                                                                                                                                                                                   2.0 - beta
                                                                                                                                                                                                                                                   Score 9; DB 4; Pred. No. 2.9
                                                                                                                                                                                                                                                     0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 9; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 3;
                                                                                                                                                                                                                                                                          .
4 e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                        Length 430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 430
                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (NPFF) Receptors
                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                       0
```

NUMBER OF SEQUENCES:

```
RESULT 12
US-09-016-366A-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JS-08-978-404B-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 100.0%; P
Matches 8; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 15, Application US/09016366A Patent No. 5955431
                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 21 amino acids
TYPE: amino acid
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/016,366A
FILING DATE: January 30, 1998
CLASSIFICATION: 530
                                                                                                                          COUNTRY: U.S.A.
ZIP: 02210-2211
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                APPLICANT: Stevens, Richard L.
APPLICANT: Huang, Chifu
TITLE OF INVENTION: MAST CELL PROTEASE PEPTIDE
TITLE OF INVENTION: INHIBITORS
NUMBER OF SEQUENCES: 65
CORRESPONDENCE ADDRESS:
ADDRESSES: Wolf, Greenfield & Sacks, P.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TOPOLOGY: 1i MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OPERATING SYSTEM: DOS
SOFTWARE: FASTSEQ for Windows Version
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/978,404B
FILING DATE: 25-NOV-97
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER: BO TELECOMMUNICATION INFORMATION: TELEPHONE: 617-720-3500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 60/0 FILING DATE: 04-DEC-1996 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                               STREET: STREET: Boston MA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS: ADDRESSEB: Wolf, Gre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Plumer, Elizabeth R.
REGISTRATION NUMBER: 36,637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM CON OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: 617-720-2441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: U.S.A. ZIP: 02210-2211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   160 LLWALSLL 167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8 LLWALSLL 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Boston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ¥
                                                                                                                                                                                                                                   600 Atlantic Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             600 Atlantic Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          No. 5968782e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Greenfield & Sacks, P.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  60/032,354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 8; Pred. N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B0801/7090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-978-404B-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-016-366A-15
US-08-978-404B-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Patent No. 5968782
GENERAL INFORMATION:
APPLICANT: Steven
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 21, Application US/08978404B Patent No. 5968782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 2.4%;
Best Local Similarity 100.0%;
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO:
                                                                     INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 276 amino acids
TYPE: amino acid
                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/032,354
EILING DATE: 04-DBC-1996
ATTORNEY/AGENT INFORMATION:
NAME: Plumer, Elizabeth R.
REGISTRATION NUMBER: 36,637
REFERENCE/DOCKET NUMBER: B0801/7090
                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOPTWARE: FASTSEO for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/978,404B
FILING DATE: 25-NOV-97
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ZIP: 02210-2211
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES: 74
CORRESPONDENCE ADDRESS:
ADDRESSEE: Wolf, Greenfield & Sacks, P.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
LENGTH: 276 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION: TELEPHONE: 617-720-3500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 05-FEB-1997
ATTORNEY/AGENT INFORMATION:
                   MOLECULE TYPE: No. 5968782e
                                                                                                                                                                                                     TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION:
                                  STRANDEDNESS:
TOPOLOGY: lir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REGISTRATION NUMBER: 36,637
REFERENCE/DOCKET NUMBER: B0801/7093
                                                                                                                                                                TELEPHONE: 617-720-3500
TELEFAX: 617-720-2441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEFAX: 617-720-2441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          160 LLWALSLL 167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8 LLWALSLL 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Boston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Plumer, Elizabeth R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 600 Atlantic Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               U.S.A.
                                                    single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Richard L.
MAST CELL PROTEASE THAT CLEAVES
FIBRINGEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60/037,090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      %; Score 8; DB 2
%; Pred. No. 18;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 276;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
```

```
APPLICANT: Gerald, Christophe P.G.
APPLICANT: Jones, Kenneth A.
APPLICANT: Bonini, James A.
APPLICANT: Bonini, James A.
APPLICANT: Borowsky, Beth
TITLE OF INVENTION: DNA Encoding Mammalian Neuropeptide FF (NPFF) Receptors
TITLE OF INVENTION: DNA Encoding Mammalian Neuropeptide FF (NPFF) Receptors
TITLE OF INVENTION: DNA Encoding Mammalian Neuropeptide FF (NPFF) Receptors
TITLE OF INVENTION: DNA Encoding Mammalian Neuropeptide FF (NPFF) Receptors
TITLE OF INVENTION: DNA Encoding Mammalian Neuropeptide FF (NPFF) Receptors
TITLE OF INVENTION: DNA Encoding Mammalian Neuropeptide FF (NPFF) Receptors
TUTLE OF INVENTION: DNA Encoding Mammalian Neuropeptide FF (NPFF) Receptors
TUTLE OF INVENTION: DNA Encoding Mammalian Neuropeptide FF (NPFF) Receptors
TUTLE OF INVENTION: DNA Encoding Mammalian Neuropeptide FF (NPFF) Receptors
TITLE OF INVENTION: DNA Encoding Mammalian Neuropeptide FF (NPFF) Receptors
TUTLE OF INVENTION: DNA Encoding Mammalian Neuropeptide FF (NPFF) Receptors
TITLE OF INVENTION: DNA Encoding Mammalian Neuropeptide FF (NPFF) Receptors
TITLE OF INVENTION: DNA Encoding Mammalian Neuropeptide FF (NPFF) Receptors
TITLE OF INVENTION: DNA Encoding Mammalian Neuropeptide FF (NPFF) Receptors
TITLE OF INVENTION: DNA Encoding Mammalian Neuropeptide FF (NPFF) Receptors
TITLE OF INVENTION: DNA Encoding Mammalian Neuropeptide FF (NPFF) Receptors
TITLE OF INVENTION: DNA Encoding Mammalian Neuropeptide FF (NPFF) Receptors
TITLE OF INVENTION: DNA Encoding Mammalian Neuropeptide FF (NPFF) Receptors
TITLE OF INVENTION: DNA Encoding Mammalian Neuropeptide FF (NPFF) Receptors
TITLE OF INVENTION: DNA Encoding Mammalian Neuropeptide FF (NPFF) Receptors
TITLE OF INVENTION: DNA Encoding Mammalian Neuropeptide FF (NPFF) Receptors
TITLE OF INVENTION: DNA Encoding Mammalian Neuropeptide FF (NPFF) Receptors
TITLE OF INVENTION: DNA Encoding Mammalian Neuropeptide FF (NPFF) Receptors
TITLE OF INVENTION: DNA Encoding Mammalian Neuropeptide FF (NPFF) Receptors
TITLE OF INVENTION: DNA Encoding Mammalian Neuropeptide FF (NPFF) Receptors

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
The 8; Conserve
       밁
                                                               ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 15
US-09-255-368-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 14
US-09-134-001C-3801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     გ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Staphylococcus epidermidis US-09-134-001C-3801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 3801, Application US/09134001C
Patent No. 6380370
GENERAL INFORMATION:
APPLICANT: Lynn Doucette-Stamm et al
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCCUS
TITLE OF INVENTION: DEPIDERMIDIS FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: GTC-007
CURRENT APPLICATION NUMBER: US/09/134,001C
CURRENT PILING DATE: 1998-08-13
PRIOR APPLICATION NUMBER: US 60/064,964
PRIOR APPLICATION NUMBER: US 60/064,964
PRIOR APPLICATION NUMBER: US 60/055,779
PRIOR APPLICATION NUMBER: US 60/055,779
PRIOR APPLICATION NUMBER: US 60/055,779
PRIOR PILING DATE: 1997-08-14
NUMBER OF SEQ ID NOS: 5674
SEQ ID NO 3801
LENGTH: 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 2, Application US/09255368
Patent No. 6262246
GENERAL INFORMATION:
                                                                                                                                          Query Match 2.4%; Score 8; DB: Best Local Similarity 100.0%; Pred. No. 27, Matches 8; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 2.4%; Score 8; DB 3; Best Local Similarity 100.0%; Pred. No. 26; Matches 8; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       160 LLWALSLL 167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               322 WLPQETLE 329
324 SSANPIIY 331
                                                                          280 SSANPIIY 287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          79 WLPQETLE 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 LLWALSLL 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2.4%; Score 8; DB 2;
100.0%; Pred. No. 18;
ative 0; Mismatches
                                                                                                                                                                                       DB 3;
lo. 27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 428;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 276;
                                                                                                                                                 0;
                                                                                                                                                                                                                        Length 432;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                 0
```

Search completed: October 27, 2004, 08:52:22 Job time : 42 secs

This Pool Blonk Misory

```
Minimum :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Word size :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Post-processing: Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BB BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            seg length: 0
seg length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OLIGO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-867-570-2
337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             October 27, 2004, 08:51:45; Search time 132 Seconds (without alignments)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1370721 segs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gapop 60.0 , Gapext 60.0
                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Published_Applications_AA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MESKSSWVIRLGFLSMDSTI...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Copyright
/ Cgn2_6/ptodata/1/pubpaa/US08_REW_PUB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US09_PUBCOMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US10_PUBCOMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US10_PUBCOMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US10_PUBCOMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US10_PUBCOMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US10_PUBCOMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US10_PUBCOMB.pep:*
/ Cgn2_6/ptodata/1/pubpaa/US10_PUBCOMB.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                 cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep:*
cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*
cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                   _6/ptodata/1/pubpaa/PCTUS
                                                                                                                                                                                                                                                                                                                                                                                             6/ptodata/1/pubpaa/US07_NEW_PUB.pep:*
6/ptodata/1/pubpaa/PCTUS_PUBCOMB.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GenCore version 5.1.6 (c) 1993 - 2004 Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              324215800 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .....EGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   827.733 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1370721
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No. 1	Score 337	Match I	Length DB	11 BB	ID US-09-867-570-2 US-09-995-225-20	Description Sequence 20.
w N	322 322	95.5 5	322 322	10	US-09-995-225-20	Sequer
wa	322 322	95.5 95.5	322 322	10	US-09-995-225-20 US-10-183-116-31	Sequence 20, A Sequence 31, A
ഗ	322	95.5	322	14	US-10-225-567A-674	Seque
o,	322	95.5	322	15	US-10-072-012-529	Seque
7	322	95.5	322	15	US-10-072-012-534	Segue
œ	287	85.2	314	14	US-10-219-834-79	Sequence
ø	277	82.2	322	14	US-10-401-397A-2	Sequence
10	224	66.5	322	15	US-10-391-074-2	Sequence
11	221	65.6	322	14	US-10-292-798-1274	Sequence
12	221	65.6	322	15	US-10-072-012-530	Sequence
13	221	65.6	322	15	US-10-072-012-535	Sequence

<b>4</b> 5	44	43	42	41	40	39	38	37	36	35	34	IJ IJ	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14
30	41	41	41	41	41	41	41	41	41	41	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	76	76	131	TRT
•			12.2	12.2	'n	12.2	12.2	'n	12.2	12.2	4.	14.8	14.8	4.	14.8		4.	14.8		٠.	14.8		14.8	4.	14.8	4.	٠.	٢		38.9	٠
319	322	322	322	322	322	322	322	322	322	176	1589	1589	322	322	322	322	322.	322	322	322	322	322	322	322	322	322	319	328	76	197	202
15	15	15	15	14	14	14	14	10	9	14	15	15	16	16	15	15	15	15	15	14	14	14	14	14	14	14	15	14	14	14	<b>1</b> -
-10-072-012-	-10-072-012-	-10-072-012-	US-10-016-248-84	US-10-292-798-1042	US-10-237-467-4		-116-3	US-09-995-225-18	US-09-995-225-18	US-10-116-252-11	US-10-072-012-532	N	US-10-314-048A-20	US-10-321-807-20	-10-	-10-072	-10-072-012-	US-10-072-012-172	-10-016-248-	-10-292-798-	-10	-10	US-10-240-998-4		US-10-079-384-4	US-10-183-116-16	-012-	US-10-219-834-20	19-834-	-10-017-161-	104-107-
170,	536,			10		e 68	ü	e 18	$\mathbf{r}$	11	53	52	20	20,	44,	533	527	172	81,	898,	e 12,	20,	Ф	10			174	20,	e 174	1600	

## ALIGNMENTS

```
片
                                                                                                           á
                                                                                                                                                                                                                                                                                                                                      ; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: FASTSEQ for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 337
; TYPE: PRT
; ORGANISM: Human
US-09-867-570-2
                                                                                                                                                         片
                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-867-570-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 2, Application US/09867570

Publication No. US20040076951A1

GENERAL INFORMATION:
APPLICANT: WEI, Ming-Hui et al.
TITLE OF INVENTION: ASSLATED HUMAN G-PROTEIN COUPLED
TITLE OF INVENTION: RECEPTORS, NUCLEIC ACID MOLECULES ENCODING HUMAN GPCR
TITLE OF INVENTION: PROTEINS, AND USES THEREOF
FILE REFERENCE: CL000900-CIP
                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 337; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/09/867,570 CURRENT FILING DATE: 2001-05-31 PRIOR APPLICATION NUMBER: 09/695,045 PRIOR PILING DATE: 2000-10-25
121 YPIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLF
                                                                   61 AVVLWLIGCRMRRNAVSIYILNLVAADFLFLSGHIICSFLRLINIRHFISKILSFVMTFP
                                                                                               61 AVVLWILLGCRMRRNAVSIYILNIVAADFIFILSGHIICSFIRILINIRHPISKIILSFVMTFF 120
                                                                                                                                                            1 MESKSSWVIRLGFLSMDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGN
                                                                                                                                                                                        1 MESKSSWVIRLGFLSMDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGN
                                                                                                                                                                                                                                                100.0%; Score 337; DB 11; ilarity 100.0%; Pred. No. 4.1e-300; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                            Length 337;
                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                    Gaps
                              180
                                                                                                                                                              60
                                                                          120
                                                                                                                                                                                                          60
                                                                                                                                                                                                                                                       0
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 2
US-09-995-225-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                      ; OTHER INFORMATION: No. US20020193584A1el Sequence US-09-995-225-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 322; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQ ID NO 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 20, Application US/09995225 Publication No. US20020193584A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: 60/309,208
PRIOR FILING DATE: 2001-07-11
NUMBER OF CEO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 67 SOFTWARE: PatentIn version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR FILING DATE: 2001-02 PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR FILING DATE: 1998-10-13
PRIOR APPLICATION NUMBER: 60/253,404
PRIOR FILING DATE: 2000-11-27
PRIOR APPLICATION NUMBER: 60/255,366
PRIOR FILING DATE: 2000-12-12
PRIOR APPLICATION NUMBER: 60/270,286
PRIOR FILING DATE: 2001-02-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: 09/170,496
PRIOR FILING DATE: 1998-10-13
PRIOR APPLICATION NUMBER: PCT/US99/23938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/09/995,225
CURRENT FILING DATE: 2001-11-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: Endogenous And No. US20020193584A1-Endogenous Versions of Human
TITLE OF INVENTION: Receptors
FILE REFERENCE: AREN-0308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Chen, Ruoping
APPLICANT: Chu, Zhi Liang
APPLICANT: Dang, Huong T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: 60/270,266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ENGTH: 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 2001-04-06
APPLICATION NUMBER: 60/282,356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/290,917 FILING DATE: 2001-05-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/282,358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/282,365
FILING DATE: 2001-04-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 2001-04-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241 LLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQ 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181 SGADSVWCETSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVF 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
76
                                                                                                                                                                 16
                                                                                   H
                                                                                                                            MDSTI PVLGTELTP I NGREETPCYKQTLS FTGLTCI VSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Lowitz, Nev-
nride, Cameron
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NLKLVLQRALQDTPEVDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NLKLVLQRALQDTPEVDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SGADSVWCETSDPITIAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     YFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLF
VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 135
                                                                                   MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                        95.5%; Score 322; DB 9; Initial of the second secon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001-04-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2001-02-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kevin P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60/282,032
                                                                                                                                                                                                                                                                                                                   Length 322;
                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                            <u>.</u>
                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                   60
                                                                                                                                                             75
                                                                                                                                                                                                                                            0
```

```
; OTHER INFORMATION: No. US-09-995-225-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-995-225-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/995,225
CURRENT FILING DATE: 2001-11-26
PRIOR APPLICATION NUMBER: 09/170,496
PRIOR ELING DATE: 1998-10-13
PRIOR PELING DATE: 1998-10-13
PRIOR PILING DATE: 1998-10-13
PRIOR PILING DATE: 1998-10-13
PRIOR APPLICATION NUMBER: 60/253,404
PRIOR PILING DATE: 2000-11-27
PRIOR APPLICATION NUMBER: 60/255,366
PRIOR PILING DATE: 2000-11-27
PRIOR PILING DATE: 2000-12-12
PRIOR PILING DATE: 2000-12-12
                                                                                                                                                                                    SOFTWARE: PatentIn version 3.1
SEQ ID NO 20
LENGTH: 322
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 20, Ap
Publication No.
Best Local Similarity Matches 322; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Chen, Ruoping
APPLICANT: Chu, Zhi Liang
APPLICANT: Chu, Zhi Liang
APPLICANT: Dang, Huong T.
APPLICANT: Lowitz, Kevin P.
APPLICANT: LOWItz, Kevin P.
APPLICANT: Pride, Cameron
TITLE OF INVENTION: Endogenous And No. US20030139588A9-Endogenous Versions of Human
TITLE OF INVENTION: Receptors
FILE REFERENCE: AREN-0308
                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: 60/
PRIOR FILING DATE: 2001-07-31
NUMBER OF SEQ ID NOS: 67
                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: 60/282,356
PRIOR TILING DATE: 2001-04-06
PRIOR APPLICATION NUMBER: 60/290,917
PRIOR FILING DATE: 2001-05-14
                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR FILING DATE: 2001-04-06
PRIOR APPLICATION NUMBER: 60/
PRIOR FILING DATE: 2001-04-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: 60/270,266
PRIOR FILING DATE: 2001-02-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: 60/282,365 PRIOR FILING DATE: 2001-04-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: 60/270,286
PRIOR FILING DATE: 2001-02-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: 60/282,032
                                                                                                                                                             ORGANISM: Artificial Sequence
                                                                                                                                          FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          136 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IAMLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       USIYILMLVAADPLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VDEGGGWLPQETLELSGSRLEQ 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDF1FSGADSVWCETSDF1T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Application US/09995225
vo. US20030139588A9
    Conservative
95.5%; Score 322; DB 10;
100.0%; Pred. No. 2.2e-286;
tive 0; Mismatches 0;
                                                                                                                  US20030139588A9el Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60/282,358
                                                                                                                                                                                                                                                                                                                            60/309,208
                                               Length 322;
    Indels
    0
    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120
    0
```

a

315 300

255

240

```
TITLE OF INVENTION: SIGNALING MOLECULES
FILE REPERENCE: CALTE.4C1CP1
CURRENT APPLICATION UNMBER: US/10/183,116
CCURRENT FILING DATE: 2002-06-26
PRIOR REPLICATION NUMBER: US 60/222,344
PRIOR FILING DATE: 2000-08-01
PRIOR APPLICATION NUMBER: US 60/202,027
PRIOR FILING DATE: 2000-05-04
PRIOR APPLICATION NUMBER: US 09/704,707
PRIOR FILING DATE: 2000-11-03
PRIOR FILING DATE: 2000-11-03
PRIOR APPLICATION NUMBER: US 60/285,493
PRIOR APPLICATION NUMBER: US 60/849,869
PRIOR APPLICATION NUMBER: US 09/849,869
PRIOR FILING DATE: 2001-05-04
NUMBER OF SEQ ID NOS: 109
SOFTWARE: PASESEQ for Windows Version 4.0
SEQ ID NO 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 31, Application US/10183116
Publication No. US/2003092035A1
GENERAL INFORMATION:
APPLICANT: Anderson, David J.
APPLICANT: Dong, Xinzhong
APPLICANT: Simon, Mark
APPLICANT: Simon, Melvin
APPLICANT: Han, Sang-kyou
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 4
US-10-183-116-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ક
                                          5
                                                                                  밁
                                                                                                            ঠ
                                                                                                                                             밁
                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                      ; TYPE: PRT ; ORGANISM: Homo sapiens US-10-183-116-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 322; Conserv
                                                                                                                                                                                                                                                                                                                                         LENGTH: 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       316 VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          136 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                   121
                                                 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              76 VSIYILNLVAADFLFLSGHIICSFLRLINIRHPISKILSFVMTFFYFIGLSMLSAISTER
                                                                                    61
                                                                                                                   76
                                                                                                                                                                      16 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16
                 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VDEGGGWLPQBTLELSGSRLEQ 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RIHLDWKYLFCHYHLVSIFLSALNSSANFIIYFFYGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                     VSIYILNLVAADPLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                   MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IAMLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLXVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MDSTIPVLGTELTPINGREETPCYKQTLSPTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRWRRNA
                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                    95.5%; Score 322; DB 14;
100.0%; Pred. No. 2.2e-286;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                    0
                                                                                                                                                                                                                     Gaps
                                                                                                                   135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                    120
                                                                                                                                                     60
                                                                                                                                                                                    75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/10/225,567A
CURRENT FILING DATE: 2001-12-19
PRIOR APPLICATION NUMBER: 60/257,144
PRIOR FILING DATE: 2000-12-19
NUMBER OF SEQ ID NOS: 2292
SOFTWARE: Patentin version 3.1
SEQ ID NO 674
LENGTH: 322
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; Sequence 674, Application US/10225567A
; Publication No. US20030113798A1
; GENERAL INFORMATION:
; APPLICANT: LifeSpan Biosciences
; APPLICANT: Brown, Joseph P.
; APPLICANT: Burmer, Glenna C.
; APPLICANT: Roush, Christine L.
; TITLE OF INVENTION: ANTIGENIC PEPTIDES AN
; FILE REFERENCE: 1920-4-4
                                                                                                  RESULT 6
US-10-072-012-529
                                                                                                                                                                                                    S
                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 5
US-10-225-567A-674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-225-567A-674
                                                 Sequence 529, Application US/10072012 Publication No. US20040033493A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches 322;
APPLICANT: Tchernev, Velizar APPLICANT: Spytek, Kimberly APPLICANT: Zerhusen, Bryan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ÷,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 196
                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              256
                                                                                                                                                                        301
                                                                                                                                                                                                                                                                      256
                                                                                                                                                                                                                                                                                                                                         196
                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                              136 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                         16 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRWRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                        VDEGGGWLPQBTLELSGSRLEQ
                                                                                                                                                                                                                                       RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                              RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                        IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                         IAMIVELCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVELLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                         CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEMMECDFLFSGADSVMCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VDEGGGWLPQETLELSGSRLEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                95.5%; Score 322; DB 14; 1 100.0%; Pred. No. 2.2e-286;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                        322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AND ANTIBODIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 322;
```

Indels

0

Gaps

300 315 240 255 180 195 120 135 60 FOR G PROTEIN-COUPLED RECEPTORS

Patturajan,

```
멍
                                                                                                                                                                                    밁
  밁
                                                                                                                                  Ś
                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                           뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-072-012-529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PILE REPRENCE : 21402-258

CURRENT APPLICATION NUMBER: US/10/072,012

CURRENT FILING DATE: 2002-01-31

PRIOR APPLICATION NUMBER: 60/265,102

PRIOR PILING DATE: 2001-01-30

PRIOR PILING DATE: 2001-01-31

PRIOR PILING DATE: 2001-02-65, 395

PRIOR PILING DATE: 2001-02-02

PRIOR PILING DATE: 2001-02-02

PRIOR APPLICATION NUMBER: 60/266, 406

PRIOR PILING DATE: 2001-02-02

PRIOR APPLICATION NUMBER: 60/266, 767

PRIOR PILING DATE: 2001-02-05

PRIOR PILING DATE: 2001-02-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Remaining Prior Application data removed - See File Wrapper NUMBER OF SEQ ID NOS: 1391
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 529
LENGTH: 322
                                                                                                                                                                                                                                                                                                                                                                   Query Match 95.5%; Score 322; DB 15; Best Local Similarity 100.0%; Pred. No. 2.2e-286; Matches 322; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR FILING DATE: 2001-02-07
PRIOR APPLICATION NUMBER: 60/267,459
PRIOR FILING DATE: 2001-02-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Burgess, Catherine E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/266,975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/267,057
                                                                                            121
                                                                                                                    136 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 195
                                                                                                                                                                                      61
                                                                                                                                                                                                                                 76
                                                                                                                                                                                                                                                                                                        16 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRWRRNA
                                                                                                                                                                                                                                                                              1 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                              VSIYILNLVAADFLELSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                          CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Furtak, Katarzyna
Grosse, William M.
Alsobrook II, John P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Lepley, Denise M.
Rieger, Daniel K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gerlach, Valerie
Taupier Jr, Raymond J.
Gusev, Vladimir Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Wolenc, Adam R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Anderson, David W. Rastelli, Luca Miller, Charles E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Padigaru, Muralidhara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gangolli, Esha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Carol E. A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Steven D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 n, Meera
Richard
                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                   322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                               255
                                                                                                                                                                                                                                 135
                                                                                          180
                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                              60
  240
                                                                                                                                                                                                                                                                                                                                                                      0
```

```
; ORGANISM: Homo US-10-072-012-534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-072-012-534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/10/072,012
CURRENT FILING DATE: 2002-01-31
PRIOR APPLICATION NUMBER: 60/265,102
PRIOR TILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: 60/265,514
PRIOR FILING DATE: 2001-01-31
PRIOR APPLICATION NUMBER: 60/265,517
PRIOR APPLICATION NUMBER: 60/265,517
PRIOR APPLICATION NUMBER: 60/265,412
PRIOR APPLICATION NUMBER: 60/265,412
PRIOR FILING DATE: 2001-01-31
PRIOR FILING DATE: 2001-01-31
Query Match
Best Local Similarity
Matches 322; Conser
                                                                                                                                             SEQ ID NO 534
LENGTH: 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 534, Appropriate Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Lepley, Denise M.
APPLICANT: Rieger, Daniel K.
APPLICANT: Burges, Catherine E.
TITLE OF INVENTION: Proteins and Nucleic Acids Encoding
FILE REFERENCE: 21402-258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                         Remaining Prior Application data removed - NUMBER OF SEQ ID NOS: 1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: 60/265,395 PRIOR FILING DATE: 2001-01-31
                                                                                                                                                                                        SOFTWARE:
                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: 60/267,459 PRIOR FILING DATE: 2001-02-08
                                                                                                                                                                                                                                                                                            PRIOR FILING DATE: 2001-02-07
PRIOR APPLICATION NUMBER: 60/
PRIOR FILING DATE: 2001-02-07
                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: 60/267,057 PRIOR FILING DATE: 2001-02-07
                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: 60/266,406 PRIOR FILING DATE: 2001-02-02
                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: 60/266,767
PRIOR FILING DATE: 2001-02-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                           TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241 RIHLDWKYLFCHVHLVSIFLSALNSSANFIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 300
                                                                                                                                                                                          PatentIn Ver.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VDEGGGWLPQETLELSGSRLEQ 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VDEGGGWLPQETLELSGSRLEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RIHLDWKYLFCHYHLYSIFLSALNSSANFIIYFFYGSFRQRQNRQNLKLYLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tchernev, Velizar
Spytek, Kimberly
Zerhusen, Bryan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Furtak, Katarzyna
Grosse, William M.
Alsobrook II, John P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Colman, Steven D. Wolenc, Adam R. Pena, Carol E. A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gerlach, Valerie
Taupier Jr, Raymond J.
Gusev, Vladimir Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Miller, Charles E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Anderson, David W.
Rastelli, Luca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Padigaru, Muralidhara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gangolli, Esha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Shimkets, Richard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Patturajan,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Application US/10072012 o. US20040033493A1
  95.5%; Score 322; DB 15; ilarity 100.0%; Pred. No. 2.2e-286; Conservative 0; Mismatches 0;
                                                                                                      sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Meera
                                                                                                                                                                                                                                                                                                                    60/266,975
                                                                                                                                                                                                                                 See File Wrapper or PALM
                                       Length 322;
```

Indels

0

Gaps

```
CURRENT APPLICATION NUMBER: US/10/219,834
CURRENT FILING DATE: 2002-08-15
PRIOR APPLICATION NUMBER: US 60/313,658
PRIOR FILING DATE: 2001-08-20
PRIOR APPLICATION NUMBER: US 60/340,703
PRIOR FILING DATE: 2001-10-30
PRIOR PPLICATION NUMBER: US 60/340,675
PRIOR PPLICATION NUMBER: US 60/318,675
PRIOR FILING DATE: 2001-09-12
PRIOR PPLICATION NUMBER: US 60/355,596
PRIOR APPLICATION NUMBER: US 60/355,596
PRIOR APPLICATION NUMBER: US 60/353,417
PRIOR PILING DATE: 2001-12-26
PRIOR PILING DATE: 2001-12-26
PRIOR PILING DATE: 2001-12-06
                                                                   र्
                                                                                                             밁
                                                                                                                                        ঠ
                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                    ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-219-834-79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 8
US-10-219-834-79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: PatentIn version 3.1 SEQ ID NO 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 79, Application US/102 Publication No. US20030096751A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Bristol-Myers Squibb Company
TITLE OF INVENTION: G-PROTEIN COUPLED RECEPTOR POLYNUCLEOTIDES AND METHODS OF
FILE REFERENCE: D0191 NP
                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       316 VDEGGGWLPQETLELSGSRLEQ 337
                                        121
                                                       136 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              136
                                                                                                                                                                                                                                                               287;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19
                                                                                                               61
                                                                                                                                76 VSIYILNLVAADFLFLSGHIICSFLRLINIRHPISKILSFVMTFFYFIGLSMLSAISTER
                                                                                                                                                                                                         16 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALIGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16
                                                                                                                                                                                      μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           H
 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS 255
                                                                                                             VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                      MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RIHLDWKVLFCHVHLVSIFLSALNSSANFIIYFFVGSFRQRQNRQNLKLVLQRALQDTFE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IAMLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                    CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VDEGGGWLPQETLELSGSRLEQ 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Application US/10219834
                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                             85.2%; Score 287; DB 14; 100.0%; Pred. No. 2.4e-254;
                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                             0.
                                                                                                                                                                                                                                                                                                Length 314;
                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                           Gaps
                                                                          195
                                                                                                             120
                                                                                                                                                  135
                                                                                                                                                                                      60
                                                                                                                                                                                                                         75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       135
                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            75
                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                USE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ħ
                                Sequence 2, Application US/10391074

Publication No. US20040038345A1

GENERAL INFORMATION:

APPLICANT: Wehls, Michael
APPLICANT: Wattler, Frank

TITLE OF INVENTION: No. US20040038345A1el Hur

FILE REFERENCE: 7705.0008-00-000

CURRENT APPLICATION NUMBER: US/10/391,074

CURRENT FILING DATE: 2003-03-17

NUMBER OF SEQ ID NOS: 4

SOFTWARE: FastSEQ for Windows Version 3.0

SEQ ID NO 2

LENGTH: 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; TYPE: PRT
; ORGANISM: Homo
US-10-401-397A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                               RESULT 10
US-10-391-074-2
                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 9
US-10-401-397A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Peri, Krishna G
APPLICANT: Moffett, Serge
APPLICANT: Abran, Daniel
LENGTH: 322
TYPE: PRT
ORGANISM: Homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                               226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 277;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Krishna G.
```

```
TITLE OF INVENTION: METHODS AND COMPOUNDS FOR TITLE OF INVENTION: INTRACCULAR PRESSURE AND FILE REFERENCE: 4518/1M674US1
CURRENT APPLICATION NUMBER: US/10/401,397A;
CURRENT FILING DATE: 2003-03-27
PRIOR APPLICATION NUMBER: US 60/367,513
PRIOR PILING DATE: 2002-03-27
NUMBER OF SEQ ID NOS: 8
SOFTWARE: PatentIn version 3.1
SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 2, Application US/10401397A Publication No. US20030212001A1
                                                                                                                                                                                181 SGADSVWCETSDFITIAMLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVF
                                                                                                                                                                                                                                                             121 YFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLF 180
                                 301 NIKIVIQRALQDTPEVDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                 241 LLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNL 287
                                                                                                                                                                                                                                                                                                                      RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SGADSVWCETSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVF
                                                                           LLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQ
                                                                                                                                                                                                                                          YFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLF
                                                                                                                                                                                                                                                                                                                                                                                                                      82.2%;
                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                    Score 277; DB 14; 1
Pred. No. 3.6e-245;
                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AND
AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PREVENTION AND TREATMENT OF RELATED CONDITIONS
322
                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 322;
                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   302
                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                               285
                                                                                                                     300
                                                                                                                                                             225
                                                                                                                                                                                                     240
                                                                                                                                                                                                                                          165
                                                                                                                                                                                                                                                                                                                        105
                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BLEVATED
```

Human Seven-Transmembrane Receptors

```
Ś
                                                                                                              닭
                                                                                                                                                Ś
                                                                                                                                                                                          밁
                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-292-798-1274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 11
US-10-292-798-1274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-391-074-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: ABURATANI, HIROYUKI
TITLE OF INVENTION: GUANOSINE TRIPHOSPHATE-BINDING PROTEIN COUPLED RECEPTORS
FILE REFERENCE: 08435/166
CURRENT APPLICATION NUMBER: US/10/292,798
CURRENT FILING DATE: 2002-11-13
PRIOR APPLICATION UNMBER: 10/017,161
PRIOR FILING DATE: 2001-12-18
PRIOR APPLICATION NUMBER: JP 2001-246789
PRIOR APPLICATION NUMBER: JP 2001-246789
PRIOR FILING DATE: 2001-06-18
NUMBER OF SEQ ID NOS: 2070
SOFTWARE: PATCHTIN Ver. 2.1
SEQ ID NO 1274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1274, Application US/10292798 Publication No. US20030235833A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 65.6%;
Best Local Similarity 99.7%;
Matches 321; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: SUWA, MAKIKO
APPLICANT: ASAI, KIYOSHI
APPLICANT: AKIYAMA, YUTAKA
APPLICANT: ABURATANI, HIRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local
                                                                                                                181
                                                                                                                                                    196
                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       143
                                                       256 RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          224;
                                                                                                                                                                                                            136 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 195
                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                  16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      86
                                                                                                                                                                                                                                                                                                       76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                            IAMLVFLCVVLCGSSLVLLVRILCGSRKMFLTRLYVTILLTVLVFLLCGLPFGIQMALFS
                                                                                                                                                                                                                                                                                       VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 135
                                                                                                                                                                                                                                                                                                                                            MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                  MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCKMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LNSSANPITYFFVGSFRQRQNRQNLKLVLQRALQDTPEVDEGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPEVDEGGG 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSA 277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFITIAWLVFLCVVLCGSSLVLLVRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CVLLWALSILRSILEWMFCDFLFSGADSVWCETSDFITIAWLVFLCVVLCGSSIVLLVRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVM
VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                  IAWLVFLCVVLCGSSLVLLVRILCGSRKWPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                          CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT
                                                                                                                                                                                                                                                                     VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  66.5%; Score 224; DB 15; ilarity 100.0%; Pred. No. 1.3e-196; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                    Score 221; DB 14; Length 322; 
Pred. No. 7.2e-194; 
O; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                142
                                                                                                              240
                                                                                                                                                    255
                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      157
                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     202
                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
```

```
δ
                                                                                                                                           ; ORGANISM: Homo sapiens US-10-072-012-530
                                                                                                                                                                                                                                                                                                                                                                                                                                           FILE REFERENCE: 21402-58
CURRENT APPLICATION NUMBER: US/10/072,012
CURRENT FILING DATE: 2002-01-31
PRIOR APPLICATION NUMBER: 60/265,102
PRIOR FILING DATE: 2001-01-30
PRIOR PILING DATE: 2001-01-30
PRIOR PILING DATE: 2001-01-31
PRIOR APPLICATION NUMBER: 60/265,514
PRIOR APPLICATION NUMBER: 60/265,517
PRIOR APPLICATION NUMBER: 60/265,517
PRIOR APPLICATION NUMBER: 60/265,412
PRIOR APPLICATION NUMBER: 60/265,412
PRIOR PILING DATE: 2001-01-31
PRIOR APPLICATION NUMBER: 60/265,395
PRIOR PILING DATE: 2001-01-31
PRIOR PILING DATE: 2001-02-02
PRIOR APPLICATION NUMBER: 60/266,406
PRIOR PILING DATE: 2001-02-02
PRIOR APPLICATION NUMBER: 60/266,767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 12
US-10-072-012-530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                SOPTWARE: PatentIn Ver.
SEQ ID NO 530
LENGTH: 322
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 530, Appublication No.
                                                         Matches
                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Tchernev, APPLICANT: Spytek, 1
                                                                                                                                                                                                                                                               Remaining Prior Application data removed - NUMBER OF SEQ ID NOS: 1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: 60/267,459
PRIOR FILING DATE: 2001-02-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Burgess, Catherine E.
TITLE OF INVENTION: Proteins and Nucleic Acids Encoding
                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: 60/266,975
PRIOR FILING DATE: 2001-02-07
                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: 60/267,057
PRIOR FILING DATE: 2001-02-07
                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR FILING DATE: 2001-02-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                 16
MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Miller, Charles E.
Gerlach, Valerie
Taupier Jr, Raymond J.
Gusev, Vladimir Y.
Colman, Steven D.
Wolenc, Adam R.
Pena, Carol E. A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VDEGGGWLPQETLELSGSRLEQ 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Furtak, Katarzyna
Grosse, William M.
Alsobrook II, John P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Lepley, Denise M.
Rieger, Daniel K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gangolli, Esha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Patturajan, Meera
Shimkets, Richard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Spytek, Kimberly
Zerhusen, Bryan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Anderson, David W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Padigaru, Muralidhara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Application US/10072012
o. US20040033493A1
                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Velizar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Luca
                                                                             65.6%;
                                                                           Score 221; DB 15;
Pred. No. 7.2e-194;
                                                         Mismatches
                                                                                                                                                                                                                                                                                       See File Wrapper or PALM
                                                                                              Length 322;
                                                         0
                                                         Gaps
                     75
```

문

MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA

```
APPLICANT: Lapley, Denise M.
APPLICANT: Rieger, Daniel K.
APPLICANT: Burgess, Catherine B.
TITLE OF INVENTION: Proteins and Nucleic Acids Encoding Same
FILE REFERENCE: 21402-258
CURRENT FILING DATE: 2002-01-31
PRIOR APPLICATION NUMBER: 00/265,102
PRIOR APPLICATION NUMBER: 60/265,514
PRIOR APPLICATION NUMBER: 60/265,517
PRIOR FILING DATE: 2001-01-31
PRIOR PRILING DATE: 2001-01-31
PRIOR PRILING DATE: 2001-01-31
PRIOR APPLICATION NUMBER: 60/265,517
PRIOR FILING DATE: 2001-01-31
PRIOR APPLICATION NUMBER: 60/265,412
PRIOR APPLICATION NUMBER: 60/265,412
PRIOR APPLICATION NUMBER: 60/265,412
PRIOR FILING DATE: 2001-01-31
PRIOR PRILING DATE: 2001-01-31
PRIOR PRILING DATE: 2001-01-31
PRIOR APPLICATION NUMBER: 60/266,406
PRIOR FILING DATE: 2001-02-02
PRIOR APPLICATION NUMBER: 60/266,767
PRIOR PILING DATE: 2001-02-05
PRIOR PILING DATE: 2001-02-05
PRIOR PILING DATE: 2001-02-07
PRIOR PILING DATE: 2001-02-07
PRIOR PILING DATE: 2001-02-07
PRIOR PILING DATE: 2001-02-07
PRIOR PILING DATE: 2001-02-08
PRIOR PILING DATE: 2001-02-08
PRIOR PILING DATE: 2001-02-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 13
US-10-072-012-535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Tchernev, Velizar
APPLICANT: Spytek, Kimberly
APPLICANT: Serhusen, Bryan
APPLICANT: Patturajan, Meera
APPLICANT: Shimketts, Richard
APPLICANT: Li, Li
APPLICANT: Gangolli, Esha
APPLICANT: Padigaru, Muralidh
APPLICANT: Padigaru, Muralidh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 535, Application No. US20 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               316 VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    136 CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IAWLYFLCVVLCGSSLYLLVRILCGSRKMFLTRLYVTILLTVLVFLLCGLFFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Anderson, David W.
Rastelli, Luca
Miller, Charles E.
Gerlach, Valerie
Taupier Jr, Raymond o
Gusev, Vladimir Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VDEGGGWLPQETLELSGSRLEQ 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RIHLDWKVLFCHVHLVSIFLSALNSSANFIIYFFVGSFRQRQNRQNLKLVLQRALQDTFB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGANSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Furtak, Katarzyna
Grosse, William M.
Alsobrook II, John P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pena,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Colman, Steven D. Wolenc, Adam R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Patturajan, Meera
Shimkets, Richard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Application US/10072012

o. US20040033493A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Carol E. A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Muralidhara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
```

```
δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-237-467-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-072-012-535
                                                                                                                        US-10-237-467-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Remaining Prior Application data removed -
NUMBER OF SEQ ID NOS: 1391
SOPTWARE: PatentIn Ver. 2.1
SEQ ID NO 535
LENGTH: 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 10, Applica Publication No. US20 GENERAL INFORMATION:
                                                                                                                                                                                                                SOFTWARE: PatentIn Ver.
SEQ ID NO 10
LENGTH: 302
                                                              Matches
                                                                           Query Match
Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                            TITLE OF INVENTION: Sensory Neuron Receptors FILE REFERENCE: 021288-001300US CURRENT APPLICATION NUMBER: 0210/237,467 CURRENT FILING DATE: 2003-01-14 PRIOR APPLICATION NUMBER: US 60/317,879 PRIOR FILING DATE: 2001-09-07 NUMBER OF SEQ ID NOS: 18
                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Liao, Jiayu
APPLICANT: Gray, Nathanael S.
APPLICANT: Caldwell, Jeremy C.
APPLICANT: Schultz, Peter G.
APPLICANT: IRM LLC
                                                                                                                                                                  LENGTH: 302
TYPE: PRT
ORGANISM: Homo sapiens
FEATURE:
                                                                                                                                      OTHER INFORMATION: dorsal root ganglia G-protein coupled receptor (GPCR) OTHER INFORMATION: 7 (DRG7) (NT009307)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        321;
281;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             16 MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRWERNA
                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IAWLVFLCVVLCGSSLVLLVRILCGSRKWPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RIHLDWKVLFCHYHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RIHLDWKVLFCHVHLVSIFLSALNSSANFIIYFFVGSFRQRQNRQNLKLVLQRALQDTFE 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IAWLVELCVVLCGSSLVLLVRILCGSRKWPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLSILWPIWYHCRRPRYLSSVMCVLLWALSILRSILEWMFCDFLFSGANSVWCETSDFIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VDEGGGWLPQETLELSGSRLEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Application US/10237467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       65.6%;
                                                                           53.7%;
                                                                                                                                                                                                                                                    2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 221; DB 15;
Pred. No. 7.2e-194;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                           Score 181; DB 14; Length 302; Pred. No. 3e-157;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                322
                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               See File Wrapper or PALM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>,</u>
                                                              0
                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              135
                                115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60
    80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             75
                                                              0,
```

밁

```
APPLICANT: SUWA, MAKIKO
APPLICANT: ASAI, KIYOSHI
APPLICANT: ASAI, KIYOSHI
APPLICANT: ASURAMA, YUTAKA
APPLICANT: ABURATANI, HIROYUKI
ITITLE OF INVENTION: NOVEL G PROTEIN-COUPLED RECEPTORS
FILE REFERENCE: 084335/0152
CURRENT APPLICATION NUMBER: US/10/017,161
CURRENT FILING DATE: 2002-12-18
PRIOR APPLICATION NUMBER: JP 2001/246789
PRIOR APPLICATION NUMBER: JP 2001/246789
PRIOR FILING DATE: 2001-06-18
NUMBER OF SEQ ID NOS: 2430
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 1600
LENGTH: 197
                                                                                                                                                                                                                                                                                                                                                                                           ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-017-161-1600
Search completed: October 27, 2004, 09:03:34 Job time : 133 secs
                                                                                                          S
                                                                                                                                                        В
                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 15
US-10-017-161-1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                      日
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 1600, Application US/10017161
Publication No. US20030143668A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                             Query Match 38.9%; Score 131; DB 14; Length 197; Best Local Similarity 100.0%; Pred. No. 1.3e-111; Matches 131; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          296 RONRONLKLVLQRALQDTPEVDEGGGWLPQETLELSGSRLEQ 337
                                                                            136 CLSILWPIWYH 146
||||||||||
121 CLSILWPIWYH 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         201 TVLVFLLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQ 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 141 CDFLFSGANSVWCETSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 116
                                                                                                                                                          61
                                                                                                                                                                              76 VSIYILMLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 135
                                                                                                                                                                                                                                81
                                                                                                                                                          VSIYILMLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TVLVF1LCG1.PFG1.0WALFSR1HLDWKV1FCHVH1VS1F1SALNSSANFIIYFFVGSFRQ 295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDFLFSGADSVWCETSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTIIL 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VMTPPYFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMF 175
                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   200
                                                                                                                                                                                                                                                                                                                 0
```

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Post-processing: Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Word size :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence:
  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                        Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        seq length: 0 seq length: 2000000000
                                                                                                                                                                                                                                                                                                                       Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OLIGO
Gapop 60.0 , Gapext 60.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-867-570-2
337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               October 27, 2004, 08:43:20 ; Search time 39 Seconds (without alignments) 831.412 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                    PIR_79:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 283416 seqs, 96216763 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MESKSSWVIRLGFLSMDSTI......EGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                        Length
 DΒ
                                                                                                                                                                                                                                     A39485
A44308
S16099
C81055
B81822
JS0037
LBBCB
B45874
C45879
C72579
AB1185
H75203
B75114
B751117
F690190
JU0052
C70424
T27841
                                                                                                                                                            AH2909
F97684
                                                                                                                                                                                 I48685
A38654
T39481
F82679
G70089
                                                                                                                                        LBRFBC
                                                                                                                                                                                                                                                                                                                                                       SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         283416
                                                                                                       hypothetical prote hypothetical prote thiamin transport hypothetical WD-re light-harvesting p light-harvesting p light-harvesting p light-harvesting p light-harvesting c lig alpha-1 chain C lig alpha-2 chain C
                                                                                                                                                                                         somatotropin precu
somatotropin - bul
mast cell proteina
mast cell proteina
hypothetical prote
conserved hypothet
hypothetical prote hypothetical prote conserved hypothet puromycin N-acetyl hypothetical prote hypothetical prote
                                                                                                                                                                                                                                                        transforming prote
Antho-RFamide prec
Viscotoxin - Burop
hypothetical prote
hypothetical prote
                                                               probable biotin sy
probable NADH dehy
                                                                                   hypothetical prote B. subtilis YdbS p
                                                                                                                                                                                                                                                                                                                        Description
```

₽ \$	Query Best 1 Matche	RESULT 2  A44308  Antho-RFamide precursor - se C;Species: Anthopleura elega C;Date: 10-Jun-193 #sequenc C;Accession: A44308  R;Schmutzler, C.; Darmer, D. J. Biol. Chem. 267, 22534-22 A;Title: Identification of a A;Reference number: A44308; A;Accession: A44308 A;Ratus: preliminary A;Molecule type: mRNA; prote A;Residues: 1-435 < SCH> A;Roross-references: UNIPROT: A;Note: sequence extracted f C;Keywords: neuropeptide		Query Matc Best Local	A;Accession: A39485 A;Status; preliminary A;Molecule type: DNA A;Residues: 1-378 < MON> A;Residues: 1-378 < MON> A;Cross-references: UNIPROT: P35410; G C;Superfamily: mas transforming prote C;Keywords: G.protein-coupled recepto	Mol. Endoc A; Title: C A; Reference	A39485 transformi C;Species: C;Date: 28 C;Accessio		4444 012840	
8 YV	) 10 To	ide pr Anthoj Anthoj Anthoj Anthoj Anthoj er, C. hem. ? C. hem. ? Hem. ?	6 9 1	Match ocal Sim	prelim type: type: 1-37 ference ily: m	rinol.	ng pro Homo -Feb-1 n: A39		77777	44444444
	h Similarity 10; Conser	pleura pl	4; Conservative NSSANPIIYFFVGS	Similarity	inary INA DNA 8 <mon 18="" 98:="" otein-c<="" td="" trar="" uni=""><td>5, 147 and fu er: A39</td><td>tein (m sapiens 992 #se</td><td></td><td>000000 111111</td><td>44444444</td></mon>	5, 147 and fu er: A39	tein (m sapiens 992 #se		000000 111111	44444444
LV 15	3. 100 vative	sor - sea anemonura elegantissima elegantissima elegantissima elegantissima elegantissima elegantissima pi	YFFVGS	100	iminary iminary ne: DNA 3.78 «MON» mas transforming prot protein-coupled recept	77-1487 inction 9485; M	nrg) - quence		301 313 315 322	256 256 263 276 284 2084
	. 0 %	sea anemo gantissince_reviince	292 319	.0%;	354 ng	al 1	hum		100000	0000000000
	Score 10; pred. No. 0; Mismatch	e (Antho on 18-No fff, D.; 2 7 7 7 7 8 7 8 8 8 8 8 8 8 8 8 8 8 8 8	0; Mismatch	; Score 14; D %; Pred. No. 6	B:S7865 in r; tran	cteri 0997;	n 17-Apr-	ALIGNMENTS	F86440 AB96909 AB96203 T449282 T724525 TVRTAS	AII119 AD1480 AIZ481 S48498 C71255 S16570 S35270 AH0415 F82256
	DB 2; Length 435; 0.085; les 0; Indels	elegantis #text_cha   ikhuijzen  ing_sites  29603  z9603	0	2; 2e-06	3; NID:g244209; PII smembrane protein	of a nove 723144	J ##		unknown prote probable perm hypothetical hypothetical hypothetical hypothetical transforming	tran tran tran hypo oxid conin chit DNA prob
	0,	sima) nge 09-Jul-2 , C.J. in the precu	0,		PIDN:AAB21255	-re	<b>1</b>		unknown protunknown probable perhypothetical hypothetical hypothetical hypothetical transforming	transcription ; transcription ; hypothetical p; oxidoreductase conserved hypoi chitinase (EC: DNA-damage rep probable membr; transcription; transcription;
		) J. he prec			B21:	lated	09-Jul-200		protical ical ical ical	pticalluctal ptical
	Сарв	Jul-2004 precursor pr338.1;	Gaps		255.1;	gen	-2004		unknown protein [i probable permease hypothetical prote hypothetical prote hypothetical prote consideration of the protection of the prote	transcription regultranscription regultranscription regultypothetical prote oxidoreductase home conserved hypothetical protein (EC 3.2. DNA-damage repair probable membranetranscription actilhypothetical prote
	0;	for the sea	0,		PID:g244210	, modulat	o : Clauser.		`` எ எ எ எ	### x 2. ## 19 # 19 # 19 # 19 # 19 # 19 # 19 #

```
hypothetical protein NMA1940 [imported] - Neisseria meningitidis (strain Z2491 C;Species: Neisseria meningitidis C;Species: Neisseria meningitidis C;Date: 05-May-2000 #sequence_revision 05-May-2000 #text_change 09-Jul-2004 C;Accession: B81822 R;Parkhill, J.; Achtman, M.; James, K.D.; Bentley, S.D.; Churcher, C.; Klee, S.; Holroyd, S.; Jagels, K.; Leather, S.; Moule, S.; Mungall, K.; Quail, M.A.; Ra; Nature 404, 502-506, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cispecies: Neisseria meningitidis
R.C.; Nelson, K.E.; Eisen,
R.Jettelin, H.; Saunders, N.J.; Heidelberg, J.; Jeffries, A.C.; Nelson, K.E.; Eisen,
Rijckey, E.K.; Haft, D.H.; Salzberg, S.L.; White, O.; Fleischmann, R.D.; Dougherty, B.
Ri, H.; Qin, H.; Vamathevan, J.; Gill, J.; Scarlato, V.; Massignani, V.; Pizza, M.
Science 287, 1809-1815, 2000
Science 287, 1809-1815, 2000
A;Authors: Grandi, G.; Sun, L.; Smith, H.O.; Fraser, C.M.; Moxon, E.R.; Rappuoli, R.
A;Title: Complete genome sequence of Neisseria meningitidis serogroup B strain MC58.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    viscotoxin - European mistletoe
C:Species: Viscum album (European mistletoe)
C:Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 31-Oct-1997
C:Accession: S16099
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-141 <PAI
                                                                                                               A;Title: Complete DNA sequence of a serogroup A strain of Neisseria menigitidis Z2491. A;Reference number: A81775; MUID:20222556; PMID:10761919 A;Accession: B81822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Cross-references: UNIPROT: Q9JY98; GB: AE002518; A; Cross-references: UNIPROT: Q9JY98; AE002518; AE002518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: mRNĀ
A; Residues: 1-111 <EUR>
C; Superfamily: viscotox:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Reference number: A81000;
A; Accession: C81055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Title: Isolation and characterization of cDNAs encoding viscotoxins of mistletoe (Visca);Reference number: S16099; MUID:91266934; PMID:1710983
A;Accession: S16099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         hypothetical protein NMB1681 [imported] - Neisseria meningitidis (strain MC58 C_7Species: Neisseria meningitidis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R;Schrader, G.; Apel, K.
Eur. J. Biochem. 198, 549-553, 1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B81822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HCRRPRYL 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GSSLVLLV 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GSSLVLLV 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              viscotoxin
DNA
1 <PAR:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2.4%; Score 8; DB larity 100.0%; Pred. No. 3. Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2.4%; Score 8; DB llarity 100.0%; Pred. No. 2. Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MUID:20175755; PMID:10710307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .
9 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GB:AE002098; NID:g7226928; PIDN:AAF420;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 141;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 111;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; Eisen, .
                                                                                                                                                                                                                                                                                 S.R.; More
Rajandream
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               serogroup
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               serogroup
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R.;
                                      밁
                                                                                                               ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
```

```
J. Mol. Endocrinol. 9, 283-289, 1992
A;Title: Cloning of a bullfrog growth hormone cDNA: exp
A;Reference number: I51188; MUID:93119453; PMID:1476615
A;Reference T51188
                                                                                                                                                                                 A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-215 <TAK>
A;Residues: 1-215 <TAK>
A;Cross-references: UNIPROT:P10813; GB:S52027; NID:g262921; PIDN:AAB24792.1; PID:g262922
C;Superfamily: prolactin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Biochim. Biophys. Acta 950, 238-242, 1988
A,Title: Cloning and sequencing of bullfrog A,Reference number: J80037, MUID:88252154, PA,Raccession: J80037
A,Molecule type: mRNA
A,Residues: 1-215 <-PANDAR A,Residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N;Alternate names: growth hormone
C;Species: Rana catesbeiana (bullfrog)
C;Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C; Accession: I51188
R; Takahashi, N.; Kikuyama,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      F;1-25/Domain: signal sequence #status
F;26-215/Product: somatotropin #status
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C; Superfamily: prolactin
C; Keywords: growth factor; hormone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Residues: 26-55 <PA2>
C;Comment: This protein is synthesized and secreted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Molecule type: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Cross-references: UNIPROT:P10813; GB:X12520; NID:g64259; A;Accession: PS0310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C; Accession: JS0037; PS0310
R; Pan, F.M.; Chang, W.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C;Species: Rana catesbeiana (bullfrog)
C;Date: 31-Mar-1992 #sequence_revision
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Gene: NMA1940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Cross-references: UNIPROT:Q9JT80; GB:AL162757; GB:AL157959; NID:g7380371; PIDN:CAB8516(
A;Experimental source: serogroup A, strain Z2491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   somatotropin - bullfrog
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N; Alternate names: growth hormone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             somatotropin precursor - bullfrog
                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Genetics:
                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
nes 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                                                                             Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          146
208 GSSLVLLV 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             208 GSSLVLLV 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 σ
                                                         Similarity
8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity 100.0%;
8; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HCRRPRYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HCRRPRYL 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GSSLVLLV 13
                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                          2.4%; Score 8;
100.0%; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2.4%; Score 8; 1
                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 8;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     K.; Maruyama, O.; Kato,
                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         predicted <SI experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            31-Mar-1992 #text_change 09-Jul-2004
                                                                                             DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    growth hormone PMID:3260110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     . DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .
6 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <SIG>
                                                                                                                            Length 215
                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 215;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 141,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δĀ
                                                                                                                                                                                                                                                                                                                                                                                                                      expression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         the
                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     anterior pituitary gland
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PIDN:CAA31038.1; PID:g64260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               complementary DNA
                                                                                                                                                                                                                                                                                                                                                                                                                         о́£
                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                         growth hormone mRNA
                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ٥,
                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                            ä
```

თ

Mon

```
mast cell proteinase 6 (EC 3.4.21.-) precursor - mouse
C.Species: Mus musculus (house mouse)
C.Date: 21.Pcb-1992 #sequence revision 17-Feb-1994 #text_change 09-Jul-2004
C.Accession: A38654, B38654; D35646; I59478
R;Reynolds, D. S.; Gurly, D.S.; Austen, K.F.; Serafin, W.E.
J. Biol. Chem. 266, 3847-3853, 1991
A, Filte: Cloning of the cDNA and gene of mouse mast cell protease-6. Transcription by pl. A;Reference number: A38654, MUID:91139882; PMID:1995638
A;Accession: A38654
A;Accession: A38654
A;Accession: B38654
A;Accessio
C;Gene: MMCP-6
A;Gene: MMCP-6
A;Introns: 24/1; 79/2; 168/1; 222/3
A;Introns: 24/1; 79/2; 168/1; 222/3
C;Superfamily: trypsin; trypsin homology
C;Superfamily: trypsin; trypsin bomology
C;Keywords: hydrolase; serine proteinase; zymogen
C;Keywords: hydrolase; serine proteinase; zymogen
F;1-21/Domain: signal sequence #status predicted <SIG>
F;22-31/Domain: activation peptide #status predicted <ACT>
F;22-31/Domain: activation peptide #status experimental <MAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Immunogenetics 40, 397-414, 1994
A;Title: Genes for mast-cell serine protease and their molecular evolution A;Reference number: I48684; MUID:95048582; PMID:7959952
A;Accession: I48685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Cross-references: UNIPROT:P21845; EMBL:X78542; NID:g468809; PIDN:CAA55288.1; PID:g4688
C;Superfamily: trypsin; trypsin homology
C;Keywords: hydrolase; serine proteinase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Status: preliminary; translated from GB/EMBL/DDBJA; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mast cell proteinase 6 (EC 3.4.21.-) precursor - mouse C;Species: Mus musculus (house mouse) C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 09-Jul-2004 C;Accession: 148685; S43172 R;Huang, R.; Hellman, L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Cross-references: GB:L31853; NID:g473480; PIDN:AAA39725.1; PID:g473481
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Residues: 1-230 < RES>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A38654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;32-230/Domain: trypsin homology #status atypical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity 100.0%; In the second secon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 160 LLWALSLL 167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LLWALSLL 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 8; Pred. N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                red. No. 5.9
Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <TRY>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 230;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
```

```
A; Experimental source: strain 9a5c
A; Experimental source: strain 9a5c
R; Simpson, A,J.G.; Reinach, F.C.; Arruda, P.; Abreu, F.A.; Acencio, M.; Alvarenga, R.; Al
Briones, M.R.S.; Bueno, M.R.P.; Camargo, A.A.; Camargo, L.B.A.; Carraro, D.M.; Carrer, H
as-Neto, B.; Docena, C.; El-Dorry, H.; Facincani, A.P.; Ferreira, A.J.S.
submitted to GenBank, June 2000
A; Authors: Ferreira, V.C.A.; Ferro, J.A.; Fraga, J.S.; Franca, S.C.; Franco, M.C.; Frohme
J.D.; Junqueira, M.L.; Kemper, B.L.; Kitajima, J.P.; Krieger, J.E.; Kuramae, E.B.; Laigre
chado, M.A.; Madeira, A.M.B.N.; Madeira, H.M.F.; Marino, C.L.; Marques, M.V.; Martins, B.
A; Authors: Martins, E.M.F.; Matsukuma, A.Y.; Menck, C.F.M.; Miracca, E.C.; Miyaki, C.Y.;
F.G.; Nunes, L.R.; Oliveira, M.A.; de Oliveira, M.C.; de Oliveira, R.C.; Palmieri, D.A
Rodrigues, V.; Rosa, A.J. de M.; de Rosa Jr., V.E.; de Sa, R.G.; Santelli, R.V.; Sawasaki
A; Authors: da Silva, A.C.R.; da Silva, A.M.; Silva, Jr., W.A.; da Silveira,
A; Tsuhako, M.H.; Vallada, H.; Van Sluys, M.A.; Verjovski-Almeida, S.; Vettore, A.L.; Ze
A; Reference number: A59328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R;anonymous, The Xylella fastidiosa Consortium of the Organization for New Nature 406, 151-157, 2000
A;Title: The genome sequence of the plant pathogen Xylella fastidiosa.
A;Reference number: A82515; MVID:20365717; PMID:10910347
A;Note: for a complete list of authors see reference number A59328 below A;Accession: F82679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Gene:
A;Map po
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Species: Schizosaccharomyces pombe (;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-0;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-0;Accession: T39481 R;Lyne, M.; Rajandream, M.A.; Barrell, B.G.; Lucas, M.; Gaillardin, submitted to the EMBL Data Library, August 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           conserved hypothetical protein XF1453 [imported] - Xylella fastidiosa (strain C;Species: Xylella fastidiosa C;Date: 18-Aug-2000 #sequence_revision 20-Aug-2000 #text_change 09-Jul-2004 C;Accession: F82679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT
F82679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Residues: 1-411 <LYN>
A;RCTOBS-TEFETENCES: UNIPROT:074310; EMBL:AL031349; PIDN:CAA20480.1;
A;Experimental source: strain 972h-; cosmid c15D4
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Reference number: Z21858
A;Accession: T39481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      hypothetical protein SPBC15D4.05 - fission yeast (Schizosaccharomyces pombe) C_iSpecies: Schizosaccharomyces pombe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      F;32-268/Domain: trypsin homology <TRY>
F;75,122,225/Active site: His, Asp, Ser #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                    A;Cross-references: UNIPROT:Q9PDC6; GB:AE003975; GB:AE003849; NID:g9106468; PIDN:AAF8426;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Status: preliminary; translated from GB/EMBL/DDB:
A; Contents: annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Residues: 1-429 <SIM>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         position:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SPDB:SPBC15D4.05 osition: 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     160 LLWALSLL 167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SLLRSILE 172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ilarity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2.4%; Score 8;
100.0%; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 8;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   . pB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 276;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         for Nucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GSPDB:GN00067; SPDB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequenc
```

```
hypothetical protein yycH - Bacillus subtilis
C.Species: Bacillus subtilis
C.Species: Bacillus subtilis
C.C.Date: 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 09-Jul-2004
C.Accession: G70089
R;Kunst, F.; Ogasawara, N.; Moszer, I.; Albertini, A.M.; Alloni, G.; Azevedo, V.; Ber C.; Bron, S.; Brouillet, S.; Bruschi, C.V.; Caldwell, B.; Capuano, V.; Carter, N.M.; A.; Ehrlich, S.D.; Emmerson, P.T.; Entian, K.D.; Errington, J.; Fabret, C.; Ferrari, Nature 390, 249-256, 1997
A;Molecule type: DNA
A;Residues: 1-541 <KUR>
A;Residues: 1-541 <KUR>
A;Cross-references: UNIPROT:Q8UBY5; GB:AE008688; PIDN:AAL43694.1; PID:g17741221; GSPDB:G
A;Experimental source: strain C58 (Dupont)
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; Karp, P.; Romero, P.; Zhang, S.
Science 294, 2317-2323, 2001
A;Authors: Yoo, H.; Tao, Y.; Biddle, P.; Jung, M.; Krespan, W.; Perry, M.; Gordon-Kamm,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         hypothetical protein thiP [imported] - Agrobacterium tumefaciens (strain C58, C;Species: Agrobacterium tumefaciens C;Species: Agrobacterium tumefaciens C;Date: 11-Jan-2002 #sequence_revision 11-Jan-2002 #text_change 09-Jul-2004 C;Date: 11-Jan-2002 #sequence_revision 11-Jan-2002 #text_change 09-Jul-2004 C;Date: 11-Jan-2002 #sequence_revision 11-Jan-2002 #text_change 09-Jul-2004 C;Date: 11-Jun-2002 #sequence_revision 11-Jun-200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Status: preliminary; nucleic acid sequence not shown; translation not shown A;Molecule type: DNA A;Residues: 1-455 <KUN> A;Cross-references: UNIPROT:Q45613; GB:Z99124; GB:AL009126; NID:g2636442; PIDN:CAB16076. A;Experimental source: strain 168 C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A., Ehrlich, S.D.; Emmerson, P.T.; Entian, K.D.; Errington, J.; Fabret, C.; Ferrari, E. Nature 390, 249-256, 1997

A;Authors: Foulger, D.; Fritz, C.; Fujita, M.; Fujita, Y.; Fuma, S.; Galizzi, A.; Galler iech, J.; Harwood, C.R.; Henaut, A.; Hilbert, H.; Holsappel, S.; Hosono, S.; Hullo, M.F. Koetter, P.; Koningstein, G.; Krogh, S.; Kumano, M.; Kurita, K.; Lapidus, A.; Lardinois, A; Authors: Lauber, J.; Lazarevic, V.; Lee, S.M.; Levine, A.; Liu, H.; Masuda, S.; Mauselly, M.; Ogawa, K.; Ogiwara, A.; Oudega, B.; Park, S.H.; Parro, V.; Pohl, T.M.; Portetelle Rieger, M.; Rivolta, C.; Rocha, E.; Roche, B.; Rose, M.; Sadaie, Y.; Sato, T.; Scanlon, A; Authors: Schleich, S.; Schroeter, R.; Scoffone, F.; Sekiguchi, J.; Sekowska, A.; Scoroakeuchi, M.; Tamakoshi, A.; Tanaka, T.; Terpstra, F.; Tognoni, A.; Tosato, V.; Uchiyama, K.; Winters, P.; Wipat, A.; Yamamoto, H.; Zamane, K.; Yasumoto, K.; Yata, K.; Yoshida, K.; A; The complete genome sequence of the Gram-positive bacterium Bacillus subtilis. A; Reference number: A65580; MUID:98044033; PMID:9384377
                                                                                                                                                                                                                                                                                                   A;Title: The Genome of the Natural Genetic Engineer Agrobacterium tumefaciens C58 A;Reference number: AB2577; MUID:21608550; PMID:11743193 A;Accession: AH2909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Gene: yycH
C;Superfamily: Bacillus subtilis hypothetical protein yycH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Superfamily:
                                                                                                                                                                                                                                                          A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Accession: G70089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Status: preliminary; nucleic acid sequence not shown; translation not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity 100.0%;
1es 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
les 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        306 LORALODT 313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LQRALQDT 162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Haemophilus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (Larity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 8; 1
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 8; ; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 429;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ٥,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         M.; McClel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Dupont)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Berter
M.; Cho
                                                        Search completed: October 27, 2004, 08:53:08 Job time : 41 secs
```

```
influenzae conserved hypothetical protein HI1590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 15
T50309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       thiamin transport system permease protein thiP [imported] - Agrobacterium tumefaciens C;Species: Agrobacterium tumefaciens C;Species: Agrobacterium tumefaciens C;Species: Agrobacterium tumefaciens C;Date: 30-Sep-2001 #sequence_revision 30-Sep-2001 #text_change 09-Jul-2004 C;Dates: 30-Sep-2001 #sequence_revision 30-Sep-2001 #text_change 09-Jul-2004 C;Accession: F97684 C;Accession: F97684 R;Goodner, B.; Hinkle, G.; Gattung, S.; Miller, N.; Blanchard, M.; Qurollo, B.; Goldma R;Goodner, B.; Hinkle, G.; Gattung, S.; Miller, N.; Blanchard, M.; Qurollo, B.; Goldma R;Goodner, B.; Hinkle, G.; Allinger, M.; Doughty, D.; Scott, C.; Lappas, C.; Markelz, E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          hypothetical WD-repeat protein [imported] - fission yeast (Schizosaccharomy C;Species: Schizosaccharomyces pombe C;Date: 09-Jun-2000 #sequence_revision 09-Jun-2000 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Title: Genome Sequence of the Plant Pathogen and Biotechnology Agent Agrobacterium tume A;Reference number: A97359; MUID:21608551; PMID:11743194
A;Accession: F97684
뎡
                                       ঠ
                                                                                                                                                                    A; Introns: 349/2; 565/3
                                                                                                                                                                                                                                                     A;Cross-references: UNIPROT:Q9USZO; EMBL:AL133303; PIDN:CAB62092.1; GSPDB:GN00067; SPDB: A;Experimental source: strain 972h(-); cosmid c1306
                                                                                                                                                                                                                                                                                              A; Residues: 1-984 <BRO>
                                                                                                                                                                                                                                                                                                               A; Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                    A; Reference number: Z25060
A; Accession: T50309
                                                                                                                                                                                                                                                                                                                                                                                                  R;Brown, S.; Harris, D.; McDougall, R.C.; Rajandream, submitted to the EMBL Data Library, November 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                         C; Accession: T50309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Gene: AGR C 4917
A; Map position: ci
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Cross-references: UNIPROT:Q8UBY5; GB:AE007869; PIDN:AAK88431.1; PID:g15157926; GSPDB:GN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: DNA
A; Residues: 1-541 < KUR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A.; Liu, F.; Wollam, C.; Al.
Science 294, 2323-2328, 2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Map position:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Gene: thiP
                                                                                                                                                                                                                                                                                                                                   A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local :
                                                                                                     Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                           Gene: SPBC4.08; SPDB:SPBC1306.02
                                                                                                                                                                                        position:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity 100.0%;
nes 8; Conservation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local
    290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                378 GSSLVLLV 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 208 GSSLVLLV 215
                                             280 SSANPITY 287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        l Similarity
8; Conserv
                                                                                  Similarity
8; Conserv
    SSAMPITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GSSLVLLV 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              circular chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                circular chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2.4%; So lilarity 100.0%; I Conservative 0;
                                                                                      Conservative
    297
                                                                                                        2.4%; Score 8;
100.0%; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 8; DB 2; Pred. No. 11; 0; Mismatches
                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 8;
Pred. No.
                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                               DB
19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB
11,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          fission yeast (Schizosaccharomyces
                                                                                                                             2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 541,
                                                                                                                           Length 984;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                          M.A.; Barrell, B.G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                      •
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ٥,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Goldman,
kelz, B.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
```

£,

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Minimum
Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OM protein -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Post-processing: Listing first 45 summ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Total number of hits satisfying
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Word size :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pred. No. is the number of result score greater than or equal to the and is derived by analysis of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            seq length: 0
seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         %
Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OLIGO
Gapop 60.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-867-570-2
337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          UniProt_02:*
1: uniprot_sprot:*
2: uniprot_trembl:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1825181 seqs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          October 27, 2004, 08:3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MESKSSWVIRLGFLSMDSTI
  0.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 - 2.000 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length DB
Gapext 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    57537464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        chosen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SU
```

MGA7 MOUSE MGA8 MOUSE MGA8 MOUSE MGA8 MOUSE MGA8 MOUSE Q912c4 mus musculu MGA8 MOUSE Q912c4 mus musculu MGA8 MOUSE Q912c4 mus musculu Q912c7 rattus norv MGA6 MOUSE Q912c7 rattus norv P35410 homo sapien AAH69345 MGA6 MOUSE AAH69346 MGA2 MOUSE AAH64040 Q7TN48 G912c6 mus musculu AAH64040 Q7TN48 Q7TN48 Q7TN45 Q912c7 mus musculu Q7TN45 Q912c7 mus musculu Q7TN45 Q912c1 mus musculu Q7TN45 Q912c1 mus musculu Q7TN45 Q912c1 mus musculu Q81491 rattus norv Q7TN45 Q912c1 mus musculu Q81491 rattus norv		pext 60.0  75374646 residues  chosen parameters: 1825181  00  45 summaries  ot: * mbl:* f results predicted by chance to have a al to the score of the result being printed, s of the total score distribution.  SUMMARIES  Description  Description	nCore version 5.1.6  1993 - 2004 Compugen Ltd.  ing sw model  4, 08:35:09; Search time 196 Seconds (without alignments) 989.292 Million cell updates/sec
	MEDLINE=2185373; PubMed=11850634; DO Lembo P.M.C., Grazzini E., Groblewski Zhang J., Hoffert C., Cao J., Schmidt Gosselin M., Fortin Y., Banville D., Dray A., Walker P., Ahmad S.; "Proenkephalin A gene products activa neuron-specific GPCRs."; Nat. Neurosci. 5:201-209(2002). [3] SEQUENCE FROM N.A. TISSUE=Testis;	RESULT 1  MRG3 HUMAN  ID MRG3 HUMAN  ID MRG3 HUMAN  AC Q96LB0; QBTDE1;  DT 01-CCT-2004 (Rel. 45, Created)  DT 01-CCT-2004 (Rel. 45, Last sequence update)  DT 01-CCT-2004 (Rel. 45, Last annotation update)  DT 01-CCT-2004 (Rel. 45, Last annotation update)  DE Mas-related G-protein coupled receptor member X3 (Sensory neuron-  DB specific G-protein coupled receptor 1).  GN Name-MRGX3; Synonyms=SNSR1;  OS Homo sapiens (Human).  OC Edwardia, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  OC Mammalia, Eutheria; Primates; Catarrhini; Hominidae; Homo.  OX NCBI_TaxID=9606;  RN [1]  RP SEQUENCE FROM N.A.  RP SEQUENCE FROM N.A.  RP SEQUENCE FROM SK., Zylka M.J., Simon M.I., Anderson D.J.;  RT "A diverse family of GPCRs expressed in specific subsets of  RT nociceptive sensory neurons.";  RP SEQUENCE FROM N.A., VARIANT ASN-169, AND TISSUE SPECIFICITY.	32 9 2.7 353 2 Q7TN44  33 9 2.7 399 2 Q75XU5  34 9 2.7 399 2 BAC87782  35 9 2.7 430 1 NFP1_HWAN  36 8 2.4 111 1 THN3_VISAL  37 8 2.4 116 2 Q9HBH  39 8 2.4 141 2 Q9JY98  40 8 2.4 141 2 Q9JY98  41 8 2.4 141 2 Q9JY98  42 8 2.4 156 2 Q711N2  43 8 2.4 156 2 QATSACA  43 8 2.4 156 2 QATSACA  44 8 2.4 156 2 QATSACA  45 8 2.4 156 2 QATSACA  47 8 2.4 156 2 QATSACA  48 2.4 156 2 QATSACA  49 8 2.4 156 2 QATSACA  40 8 2.4 156 2 QATSACA  41 8 2.4 156 2 QATSACA  42 8 2.4 156 2 QATSACA  43 8 2.4 156 2 QATSACA  44 8 2.4 215 1 SOMA_RANCA  45 8 2.4 215 2 QATSUAT  47 rana catesb

```
Query Match
Best Local S
Matches 322
                                                                                                                                                                                                                                                                                                                                                                          CONFLICT
CONFLICT
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; AY042215; AAK91806.1; -. EMBL; AF474987; AAL86878.2; -. EMBL; BC067292; AAH67292.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EW the European Bioinformatics Institute. There are no restruse by non-profit institutions as long as its content modified and this statement is not removed. Usage by and entities requires a license agreement (See http://www.isb-s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     G-protein coupled DOMAIN 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ++
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Proc.
                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; PROSITE; PS50262; G_PROTEIN_RECEP_F1_2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MIM; 607229;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -
                                                                                                                                                                                                                                                                                                                                                                                                                                                            VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pfam; PF00001; 7tm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             c. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).

FUNCTION: Orphan receptor. Probably involved in the function of nociceptive neurons. May regulate nociceptor function and/or development, including the sensation or modulation of pain. Potently activated by enkephalins (By similarity).

SUBCELLULAR LOCATION: Integral membrane protein.

TISSUE SPECIFICITY: Uniquely localized in a subset of small dorsal root and trigeminal sensory neurons.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mas subfamily.
                                                                                                                                136
                                                                                                 121
                                                                                                                                                                61
                                                                                                                                                                                              76
                                                                                                                                                                                                                              1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PR00237; GPCRRHODOPSN.
                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                    CLSILWPIWYHCRRPRYLSSVMCVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFIT
                                                                                                                                                                                     VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTPPYFIGLSMLSAISTER
                                                                                                                                                                                                                              MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRWRRNA
                                                                                                                                                                                                                                             MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTGNAVVLWLLGCRMRRNA
RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                VSIYILNLVAADFLFLSGHIICSPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTER
                                 IAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IPR000276; GPCR_Rhodpsn.
                                                                                                                                                                                                                                                                                                                                                                             3
82
307
319
                                                                                                                                                                                                                                                                                                                                                                                                                                                           118
141
162
178
199
214
235
255
276
                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      32
53
61
97
                                                                                                                                                                                                                                                                                                                                                              AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Belongs to family 1 of G-protein coupled receptors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    receptor;
                                                                                                                                                                                                                                                                                                                                                                           3
82
307
319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      52
60
81
96
117
140
161
                                                                                                                                                                                                                                                                                     95.5%; Dre
100.0%; Pre
                                                                                                                                                                                                                                                                                                                                                                                                                                                            169
                                                                                                                                                                                                                                                                                                                                                              36484 MW;
                                                                                                                                                                                                                                                                                                                                                                          Cytoplasmic (Potential).
D - W (in dbSNP:4274188).
FTId=VAR 019434.
S -> P (in Ref. 2).
C -> R (in Ref. 3).
W -> Q (in Ref. 3).
W -> K (in Ref. 2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Polymorphism; Transmembrane.
                                                                                                                                                                                                                                                                                                           Score 322; DB 1;
Pred. No. 3e-311;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Extracellular (Potential)
3 (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Extracellular (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cytoplasmic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Extracellular (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cytoplasmic 2 (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Extracellular (Potential).
                                                                                                                                                                                                                                                                                                                                                                253B1BEF0CB4EB74 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (Potential)
                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             There are no restrictions ong as its content is in
                                                                                                                                                                                                                                                                                                                           DB 1; Length 322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (Potential).
                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TEMBI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   for
                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  outstation
                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
 315
                                                                                                                                195
                                                                                                                                                                                              135
                                                                                                180
                                                                                                                                                                120
                                                                                                                                                                                                                              60
                                 240
                                                                255
                                                                                                                                                                                                                                                                                              0
```

밁 Ş 밁 δ 밁 S 밁 δ

```
δ
                                                                        밁
                                                                                                         8
                                                                                                                                                 밁
                                                                                                                                                                                       á
                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RA Klausner R.D., Cellins F.S., Wagner L., Shenmen C.M., Schuler G.D., RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D., RA Klausner R.D., Collins F.S., Buettow K.H., Schaefer C.P., Bhat N.K., RA Altschul S.F., Zeeberg B., Buettow K.H., Schaefer C.P., Bhat N.K., RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Heich F., RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Heich F., RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E., RA Stapleton M., Usdin T.B., Poshiyuki S., Carninci P., Prange C., RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J., RA Raha S.S., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Willalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A., Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A., RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A., RA William M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., RA Whiting M., Touchman J.W., Green E.D., Dickson M.C., RA RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S., Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E., Ra Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E., Ra Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
                                                                                                                                                                                                                                                                                                        Query Match
Best Local Sim:
Matches 224;
                                                                                                                                                                                                                                                                                                                                                                                                     Strausberg R.;
Submitted (MAR-2004) to the EMBL/GenBank/DDBJ databases.
EMBL; BC067292; AAH67292.1; -.
Receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25-MAR-2004 (TrEMBLrel. 27, 25-MAR-2004 (TrEMBLrel. 27, 25-MAR-2004 (TrEMBLrel. 27,
                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Jones S.J., Marra M.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=22388257; PubMed=12477932;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAH67292;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAH67292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE=Testis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Generation and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein-coupled
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mouse cDNA sequences.";
c. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                  278
                                                                                                             218
                                                                                                                                                                                         158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                     143
                                                                                                                                                                                                                                83
                                                                                                                                                                                                                                                                    98
                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                       CVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFITIAWLVFLCVVLCGSSLVLLVRI
                                                                                                                                                                                                                                                      SPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTERCLSILMPIWYHCRRPRYLSSVM
                    LNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPEVDEGGG 321
                                                                                          LCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSA
                                                                                                                                                     CVLLWALSLLRSILEWMFCDFLFSGADSVWCETSDFITIAWLVFLCVVLCGSSLVLLVRI
                                                                                                                                                                                                                                SPLRLINIRHPISKILSPVMTFPYFIGLSMLSAISTERCLSILWPIWYHCRRPRYLSSVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VDEGGGWLPQETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQDTPE
                                                                                                                                                                                                                                                                                                                                                                                         322 AA;
                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              receptor
                                                                                                                                                                                                                                                                                                                                                                                       36479 MW;
                                                                                                                                                                                                                                                                                                                           100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MRGX3.
                                                                                                                                                                                                                                                                                                        Score 224; DB
; Pred. No. 9e-
0; Mismatches
                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Last annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Last
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Created)
                                                                                                                                                                                                                                                                                                                                                                                         B91DC082B6D95DA8 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sequence update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               322
                                                                                                                                                                                                                                                                                                                             9e-214;
                                                                                                                                                                                                                                                                                                                                                 DB 2; Length 322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  update)
                                                                                                                                                                                                                                                                                                      ·,
                                                                                                                                                                                                                                                                                                          Indels
306
                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                               277
                                                                                                                                                       202
                                                                                                                                                                                         217
                                                                                                                                                                                                                                  142
                                                                                                                                                                                                                                                                      157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                            262
                                                                                                                                                                                                                                                                                                          0
```

RESULT 3
SNS2\_HUMA

HUMAN

SNS2 HUMAN Q8TDE0; 01-OCT-2004

(Rel. 45, Created)

STANDARD;

322

8

δ.′ B

밁

```
Matches
                   Query Match
Best Local
                                                         CARBOHYD
SEQUENCE
                                                                                                                                                                                                                     TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EM the European Bioinformatics that the European Bioinformatics Institute. There are no restrue by non-profit institutions as long as its content modified and this statement is not removed. Usage by and entities requires a license agreement (See http://www.isb-s.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Proenkephalin A gene products activate a new family of sensory neuron-specific GPCRs.";
Nat. Neurosci. 5:201-209(2002).

-i-FUNCTION: Orphan receptor. Probably involved in the function nociceptive neurons. May regulate nociceptor function and/or development, including the sensation or modulation of pain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE 2183733; PubMed=11850634; DOI=10.1038/nn815; MEDLINE 21853733; PubMed=11850634; DOI=10.1038/nn815; Lembo P.M.C., Grazzini B., Groblewski T., O'Donnell D., R Zhang J., Hoffert C., Cao J., Schmidt R., Pelletier M., I Zhang J., Hoffert Y., Banville D., Shen S., Stroem P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-OCT-2004 (Rel. 45, Last sequence update)
01-OCT-2004 (Rel. 45, Last annotation update)
Sensory neuron-specific G-protein coupled receptor
                                                                                                                                                                                                                                                                                                   PRINTS; PR00237; GPCRRHODOPSN.

PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.

PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Name=SNSR2;
Homo sapiens (Human).
                                                                                                TRANSMEM
                                                                                                                                                                                                                                                                                      G-protein
                                                                                                                                                                                                                                                                                                                                                                    EMBL; AF474988; AAL86879.2;
                                                                                                                                                                                                                                                                                                                                                                                                or send
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Dray A., Walker P., Ahmad S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.,
                                                                                      DOMAIN
                                                                                                                            TRANSMEM
                                                                                                                                                      TRANSMEM
                                                                                                                                                                                TRANSMEM
                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                          TRANSMEM
                                                                                                                                                                                                                                                 DOMAIN
                                                                                                                                                                                                                                                               TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=9606
                                                                                                                                         DOMAIN
                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                      InterPro; IPR000276; GPCR_Rhodpsn.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Potently activated by enkephalins (By similarity).
SUBCELLULAR LOCATION: Integral membrane protein.
TISSUB SPECIFICITY: Uniquely localized in a subset of small dorsal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mas subfamily.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               root and trigeminal
                                                                                                                                                                                                                                                                                                                                           PF00001; 7tm_1; 1
                                                                                                                                                                                                                                                                                                                                                                                                an email to license@isb-sib.ch).
                    Similarity
                                                                                                                                                                                                                                                                                        Tdnoo
                                                                                                                                                                33
61
62
82
97
118
141
      Conservative
                                                           Ş
                                                                                                                                                                                                                                                                                        ed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Belongs to family 1 of G-protein coupled receptors
                                                                                                                                                                1 receptor;
32
53
60
81
96
117
140
161
25.5%; Dr/
100.0%; Pr/
0;
                                                                                                198
213
234
254
275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AND TISSUE
                                                           36594 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sensory neurons
                                                                                                                                                                                                                                                                          Transmembrane.
Extracellular (Potential).
                    Score 86;
Pred. No.
                                                                       Cytoplasmic (Potential).
N-linked (GlcNAc. . .) (Potential)
                                                                                                                          Cytoplasmic 6 (Potential
                                                                                                                                                                                                                                    Cytoplasmic 2 (Potential
                                                                                                    Extracellular (Potential) 7 (Potential).
                                                                                                                                                                 Extracellular (Potential)
                                                                                                                                                                            4 (Potential).
                                                                                                                                                                                            Cytoplasmic
                                                                                                                                                                                                                      Extracellular (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                          D8C24308E3B4611B CRC64;
                                                                                                 (Potential)
                                                                                                                            (Potential)
                                                                                                                                                      (Potential)
                                                                                                                                                                                                          (Potential)
                                                                                                                                                                                                                                    (Potential)
                                                                                                                                                                                                                                                               (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SPECIFICITY.
      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                           (See http://www.isb-sib.ch/announce/
     1.7e-76;
hes 0;
                                 DB 1;
                                                                                                                                                                                            (Potential).
                                                                                                                                                                                                                                                 (Potential).
                                                                                                                                        (Potential).
                              Length 322;
      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                    restrictions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Labarre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Roy M. -0.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Payza K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                       81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                b
      0
                                                                                                                                                                                                                                                                                                                                                                                                                           for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  outstation
      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                       ņ
                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
      0
```

ફ

204 VVLCGSSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFSRIHLDWKV

```
RESULT
MRG1_H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MRG1 HUMAN (
Q96LB2; Q8TDD8;
01-OCT-2004 (Re
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-OCT-2004 (Rel. 45, Last sequence update)
01-OCT-2004 (Rel. 45, Last annotation update)
Mas-related G-protein coupled receptor member X1
specific G-protein coupled receptor 4).
Name=MRGX1; Synonyms=SNSR4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Lembo P.M.C., Grazzini E., Gr
Zhang J., Hoffert C., Cao J.,
Gosselin M., Fortin Y., Banvi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             receptor genes.";
Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
Suwa M., Sato T., Okouchi I., Arita M., Futami K., Matsumoto S.,
Tsutsumi S., Aburatani H., Asai K., Akiyama Y.;
"Genome-wide discovery and analysis of human seven transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Takeda S., Kadowaki S., Haga T., Take "Identification of G protein-coupled genome sequence.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=22040266; PubMed=12044878;
Takeda S., Kadowaki S., Haga T., T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Proenkephalin A gene products activate neuron-specific GPCRs.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=21853733; PubMed=11850634; DOI=10.1038/mn815; Lembo P.M.C., Grazzini E., Groblewski T., O'Donnell D., Zhang J., Hoffert C., Cao J., Schmidt R., Pelletier M., Gosselin M., Fortin Y., Banville D., Shen S., Stroem P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIINE=21435808; PubMed=11551509;
Dong X., Han S.-K., Zylka M.J., Simon M.I.,
"A diverse family of GPCRs expressed in spec
nociceptive sensory neurons.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEBS Lett.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Dray A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo gapiens
                                                                                                                                                                                                     Potently activated by enkephalins including BAM22 (bovine adrenal medulla peptide 22) and BAM (8-22). BAM22 is the most potent compound and evoked a large and dose-dependent release of intracellular calcium in stably transfected cells. G(alpha)q proteins are involved in the calcium-signaling pathway. SUBCELLULAR LOCATION: Integral membrane protein. TISSUE SPECIFICITY: Uniquely localized in a subset of small dorsal root and trigeminal sensory neurons.
SIMILARITY: Belongs to family 1 of G-protein coupled receptors.
                                                                                                                                                                                          Mas
                                                                                                                                                                                                                                                                                                                                                                                                                                                 FUNCTION: Orphan receptor. Probably involved in the function nociceptive neurons. May regulate nociceptor function and/or development, including the sensation or modulation of pain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                264
                                                                                                                                                                                       subfamily.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LFCHVHLVSIFLSALNSSANDIIYFF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Walker P., Ahmad S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LECHVHLVSIFLSALNSSANPITYFF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        520:97-101(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (Rel. 45, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5:201-209 (2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AND TISSUE SPECIFICITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Takaesu H., Mitaku
pled receptor genes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .I., Anderson specific subs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 new
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 family of sensory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Stroem P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             in the function
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  aubaeta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (Sensory neuron-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .J.;
ts of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Roy M. -0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Payza K.,
                                                                                                             a collaboration -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          helix
```

```
RESULT
SNS3_H
                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                             吊
                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local S
Matches 50
                                                                                                                                                                                                                                                     ULT 5
3 HUMAN
SNS3 HUMAN
QBTDD9;
01-OCT-2004
01-OCT-2004
                                                                                                                                                                                                                                                                                                                                                                                                                               CONFLICT
                                                                Nat.
                                                                                                                                                                                          Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                  01-OCT-2004 (Rel. 45, Created)
01-OCT-2004 (Rel. 45, Last sequence update)
01-CCT-2004 (Rel. 45, Last annotation update)
Sensory neuron-specific G-protein coupled receptor 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TRANSMEM
DOMAIN
                                                                                   "Proenkephalin A gene products activate a new neuron-specific GPCRs.";
                                                                                                       Gosselin M., Fortin Y., Banville Dray A., Walker P., Ahmad S.;
                                                                                                                           SEQUENCE FROM N.A., AND TISSUE SPECIFICITY.
MEDLINE=21053733; PubMed=11850634; DOI=10.1038/nn815;
Lembo P.M.C., Grazzini E., Groblewski T., O'Donnell D
Zhang J., Hoffert C., Cao J., Schmidt R., Pelletier M
                                                                                                                                                                               NCBI_
                                                                                                                                                                                                                                                                                                                                                                                                                                                              VARIANT
                                                                                                                                                                                                                           Name=SNSR3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NIAMOC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         send an email to license@isb-sib.ch).
                                                 . Neurosci. 5:201-209(2002).
FUNCTION: Orphan receptor. Probably involved nociceptive neurons. May regulate nociceptor.
        development, including the sensation or modulation of pain. Potently activated by enkephalins including BAW22 (bovine adrenal medulla peptide 22) and BAM (8-22). BAW22 is the most potent compound and evoked a large and dose-dependent release of
                                                                                                                                                                                 TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                          263 VLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQD
                                                                                                                                                                                                                                                                                                                                                                                       50;
                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                           VLFCHVHLVSIFLSALNSSANPIIYFFVGSFRQRQNRQNLKLVLQRALQD
                                                                                                                                                                                                                                                                                                                                                                                                                               322 AA;
                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                          ហ
                                                                                                                                                                                                                                                                                        STANDARD;
 calcium in stably
                                                                                                                                                                                                                                                                                                                                                                                                                                36250 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              16
36
                                                                                                                                                                                                                                                                                                                                                                                                 14.8%; Score 50;
100.0%; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                         u
                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Glycoprotein; Polymorphism; Transmembrane. Extracellular (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Cytoplasmic (Potential).
N-linked (GlcNAc. .) (Pollinked (BlcNAc. .) (Pollinked (BsNP:11024885)
                                                                                                                                                                                                                                                                                                                                                                                                                                         н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cytoplasmic (Potential).
2 (Potential).
Extracellular (Potential)
3 (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                          I -> V (in dbSNP:
/FTId=VAR_019432.
I -> V (in Ref. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Extracellui
7 (Potentia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cytoplasmic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Extracellular (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cytoplasmic 4 (Potential
                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                               -> V (in Ref. 2).
C7F3A9F4418E8AD1 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (Potential)
                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                  D., Shen
                                                                                                                                                                                                                                                                                        322 AA
                                                                                                                                                                                                                                                                                                                                                                                                          DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                 1.1e-40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ar (Potential)
                                                                                                                  s:,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (Potential).
                                                                                                                            O'Donnell D., Pelletier M.,
                                                                                             family
                                                                                                                   Stroem
                                                                                                                                                                                                                                                                                                                                                                                                          Length 322
                                                    function
                                                              in the
                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (Potential).
                                                                                                                  P.,
                                                                                              얁
G(alpha)q
                                                                                              sensory
                                                                                                                            Roy M.-O.,
Labarre M.,
                                                              function
                                                                                                                  Payza
                                                    and/or
                                                                                                                                                                                                                                                                                                                                             297
                                                                                                                                                                                                                                                                                                                                                                 312
                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                  ~
                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                               of
                                                                                                                                                                                                                                                                                                                                                                                      0
```

```
MRG4
                                                                                                                                                                                                                                                                                                                               S
 RESULT
                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local S
Matches 44
                                                                                                                                                                                                                         MRG4_HUMAN
Q96LA9; Q8TDI
01-OCT-2004
                                                                                                                                                                                                                                                             HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                    TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TRANSMEM
DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                              01-OCT-2004 (Rel. 45, Created)
01-OCT-2004 (Rel. 45, Last sequence update)
01-OCT-2004 (Rel. 45, Last sequence update)
01-OCT-2004 (Rel. 45, Last annotation update)
Mas-related G-protein coupled receptor member
specific G-protein coupled receptor 6).
Name=MRGX4; Synonyms=SNSR6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ++
                                 MEDLINE=21435808; PubMed=11551509;
Dong X., Han S.-K., Zylka M.J., Simon
"A diverse family of GPCRs expressed i
nociceptive sensory neurons.";
Cell 106:619-632(2001).
                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the European Bioinformatics Institute. There are no rest
use by non-profit institutions as long as its content
modified and this statement is not removed. Usage by ar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the E the European Bioinformatics Institute. There are no rest
SEQUENCE FROM N.A., MEDLINE=21853733; Po
                                                                                                                                                                                                                                                                                                                                                                                                                                        TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
G-protein coupled receptor; Glycoprotein; Transmembrane.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; AF474989; AAL86880.2; -. InterPro; IPR000276; GPCR_Rhodpsn.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                            SEQUENCE
                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRINTS; PR00237; GPCRRHODOPSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pfam; PF00001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              proteins are involved in the calcium-signaling pathway SUBCELLULAR LOCATION: Integral membrane protein.
TISSUE SPECIFICITY: Uniquely localized in a subset of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        root and tri
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mas subfamily.
                                                                                                                                                                                                                                                                                                                       294 RORONRONLKIVLORALIODTPEVDEGGGWLPOETLELSGSRLEQ 337
                                                                                                                                                                                                                                                                                                           279
                                                                                                                                                                                                                                                                                                                                                       44;
                                                                                                                                                                                                                                       QBTDD6;
                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                           FROM N.A.
                                                                                                                                                                                                                                                                                                          RORONRONLKLVLORALODTPEVDEGGGWLPQETLELSGSRLEQ 322
                                                                                                                                                                                                                                                                                                                                                                                                      322
                                                                                                                                                                                                                                                                                                                                                       13.1%;
llarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                32
53
53
118
118
166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     trigeminal sensory
                                                                                                                                                      (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7tm
                                                                                                                                                                                                                                                                                                                                                                                                      A,
                                                                                                                                                                                                                                                  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Belongs to family 1 of G-protein coupled receptors
 PubMed=11850634; DOI=10.1038/nn815;
                                                                                                                                                                                                                                                                                                                                                                                                                  96
117
144
165
177
198
1221
242
275
275
16
            AND TISSUE
                                                                                                                                                                                                                                                                                                                                                                                                      36287
                                                                                                                                                                                                                                                                                                                                                                                                      MW;
                                                                                                                                                                                                                                                                                                                                                       Score 44; DB; Pred. No. 1e-
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                       ç
                                                                                                                                                                                                                                                                                                                                                                                                                 Cytoplasmic
N-linked (G
                                                                                                                                                                                                                                                                                                                                                                                                                                         Cytoplasmic (Potential).
6 (Potential).
Extracellular (Potential)
7 (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 (Potential)
Cytoplasmic (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Extracellu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4 (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cytoplasmic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3 (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Extracellu]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Extracellular (Potential)
                                                                                                                                                                                                                                                  PRT;
            SPECIFICITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (Potential
                                                                                                                                                                                                                                                                                                                                                                                                    4C43E33E52DCBFF5 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     neurons
                                                         n M.I.,
in spec
                                                                                                                                                                                                                                                  322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (See http://www.isb-sib.
                                                                                                                                                                                                                                                                                                                                                                                                                   (GlcNAc
                                                                                                                                                                                                                                                                                                                                                                   DB 1;
1e-34;
                                                          specific
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 lar (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ar (Potential)
                                                                                                                                                                                                                                                  ₹
                                                                                                                                                                                                                                                                                                                                                                                                                            (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ie protein.
1 in a sub-
                                                                     Anderson D.J.;
                                                                                                                                                                                        X4
                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                             Length 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                subset of small
                                                          aubsets
                                                                                                                                                                                        (Sensory neuron-
                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                 (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                restrictions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL
                                                          얁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a collaboration -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           for
                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      in
                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                dorsal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ņ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                                                                                                                                                                                                        0
```

Lembo P.M.C., Cauzhang J., Hoffert C., Cauzhang J., Hoffert Y., Banv Gosselin M., Fortin Y., Banv Gosselin M., Walker P., Ahmad S

E., Groblewski T., O'Donnell D.,
Cao J., Schmidt R., Pelletier M.,
Banville D., Shen S., Stroem P.,
mad S.;

. .

Payza K.,

Labarre M., Roy M. -O.,

"Proenkephalin A gene products activate a new family of sensory neuron-specific GPCRs.";

. Neurosci. 5:201-209(2002).
FUNCTION: Orphan receptor. Probably involved nociceptive neurons. May regulate nociceptor.

FUNCTION: Orphan receptor. Probably involved in the function of nociceptive neurons. May regulate nociceptor function and/or development, including the sensation or modulation of pain. Potently activated by enkephalins (By similarity). SUBCELLULAR LOCATION: Integral membrane protein. TISSUE SPECIFICITY: Uniquely localized in a subset of small dorsal root and trigeminal sensory neurons.

SIMILARITY: Belongs to family 1 of G-protein coupled receptors.

Mas subfamily.

moved. Usage by and fo (See http://www.isb-sib.

and

for

ch/announce/ no restrictions on

EMBL

collaboration outstation

```
밁
              S
                                                                         Query Match
Best Local
                                     Matches
                                                                       CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                              CARBOHYD
CARBOHYD
                                                                                                                                                                                                          DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                     DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; AY042216; AAK91807.1; -.
EMBL; AF474992; AAL86883.1; -.
MIM; 607230; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                      This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EM the European Bioinformatics Institute. There are no restruse by non-profit institutions as long as its content modified and this statement is not removed. Usage by and entities requires a license agreement (See http://www.isb-sorsend an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                            PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.

PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.

G-protein coupled receptor; Glycoprotein; Polymorphism; Transmembrane.
                                                                                                                                                                                                                                                                                                                                                                     Pfam; PF00001; 7tm 1; 1.
PRINTS; PR00237; GPCRRHODOPSN
                                                                                                              VARIANT
                                                                                                                               VARIANT
                                                                                                                                                   VARIANT
                                                                                                                                                                      VARIANT
                                                                                                                                                                                                                             TRANSMEM
                                                                                                                                                                                                                                               TRANSMEM
                                                                                                                                                                                                                                                        DOMAIN
                                                                                                                                                                                                                                                                  TRANSMEM
                                                                                                                                                                                                                                                                                                         TRANSMEM
                                                                                                                                                                                                                                                                                                                            TRANSMEM
                                                                                                                                                                                                  DOMAIN
                                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                    DOMAIN
194
                                    41;
                                              Similarity
          SSLVLLVRIICGSRKMPLTRLYVTIILLTVLVFLLCGLPFGI
SSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGI
                                                                                                                                                                                                                                                                                                                                                                                          IPR000276; GPCR_Rhodpsn
                                                                       182
319
322
                                    Conservative
                                                                                                                                                                                                                             32
53
61
61
97
118
138
138
178
178
199
                                                                                                                                                                      89
89
                                                                                                             83
                                                                                                                              54
                                                                                                                                                  25
                                                                         ₹
                               12.2%; 500
100.0%; Pr
                                                                                                                              5
4
                                                                                                              83
                                                                                                                                                  25
                                                                         Œ;
                                            Score 41;
Pred. No.
                                                                                                                   N -> K 11...
/FTId=VAR 019436.
Y -> C (in dbsnp:1869788).
                                                                                                                                                                            Cytoplasmic (Potential).
N-linked (GlcNAc...) (
N-linked (GlcNAc...)
                                                                                                                                                                                                                                               Extracellular 5 (Potential).
                                                                                                                                                                                                                                                                  Cytoplasmic 4 (Potential
                                                                                                                                                                                                                                                                                    Cytoplasmic (Potential).
2 (Potential).
Extracellular (Potential).
3 (Potential).
                                                                                                             /FTId=VAR_019437.
S -> L (in dbSNP:2445179)
                                                                                                                                                                                                                             Cytoplasmic 6 (Potential
                                                                                                                                                           F -> L (in dbSNP:2468774).
/FTId=VAR_019435.
                                                                                                                                                                                                                    Extracellular (Potential).
                                                                                                                                                                                                                                                                                                                                    Extracellular (Potential).
                                                                                                     /FTId=VAR
                                                                                                                                                                                                           (Potential)
                                                                                                                                                                                                                                                                   (Potential)
                                                                     -> V (in Ref. 2).
-> K (in Ref. 2).
7CA676F8BD390A31 CRC64;
                                                                                                                                                                                                                             (Potential)
                                                                                                                                                                                                                                                                                                                            (Potential)
                                   red. No. 9.6e-32;
Mismatches 0;
                                                                                                                                                  K (in dbSNP:2445180).
                                                                                                    019438
                                                      DB 1;
                                                                                                                                                                                                                                                                           (Potential).
                                                                                                                                                                                                                                       (Potential).
                                                                                                                                                                                                                                                         (Potential)
                                                     Length 322;
                                    Indels
                  249
234
                                                                                                                                                                              (Potential). (Potential).
                                   0
                                   Gaps
                                   0
```

RESULT 7

맑 S

SSLVLLVRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGI 249

```
SNS5 HUMAN

AC OSTIDIT

AC OSTIDIT

AC OSTIDIT

AC OSTIDIT

DT 01-OCT

DT 01-OCT

DT 01-OCT

DT 01-OCT

DT 01-OCT

DT 01-OCT

CO Homos s

AC NCELL T

RW MEDLIN

RA Lembo

RA Exang

RA Dray A

RT "Proen

RI "PROSII

DR PRINTE

DR PRINTE

DR PRINTE

DR PROSII

DR PROSII

DRAII

FI TRANSI

FI CARBO

SEQUE

SEQUE
            Query Match
Best Local :
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q8TDD7;
01-OCT-2004
01-OCT-2004
                                                                                                                                                                                                                                                                                                                                            Pfam; PF00001; 7tm 1; 1.

PRINTS; PR00237; GPCRRHODOPSN.

PROSITE; PS00237; GPROTEIN RECEP_F1 1; 1.

PROSITE; PS0262; G_PROTEIN_RECEP_F1 2; 1.

G-protein coupled receptor; Transmembrane.

DOMAIN 1 31
                                                                                                                                                                                                                                                        DOMAIN
TRANSMEM
                                                                                                                                                                                                                       DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A., AND TISSUE SPECIFICITY.

MEDLINE=21853733; PubMed=11856634; DOI=10.1038/nn815;
Lembo P.M.C., Grazzini B., Groblewski T., O'Donnell D., F
Zhang J., Hoffert C., Cao J., Schmidt R., Pelletier M., I
Gosselin M., Fortin Y., Banville D., Shen S., Stroem P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-OCT-2004 (Rel. 45, Created)
01-OCT-2004 (Rel. 45, Last sequence update)
01-OCT-2004 (Rel. 45, Last annotation update)
Sensory neuron-specific G-protein coupled receptor
                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   between the Swiss Institute of Bioinformatics and the EMBL outst the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for commodified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Proenkephalin A gene products activate a new family of sensory neuron-specific GPCNs.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gosselin M., Fortin Y., Banvi
Dray A., Walker P., Ahmad S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SNS5 HUMAN
                                                                                                                                                                                                                                                                                          TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; AF474991; AAL86882.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         entities requires a license agreement
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Name=SNSR5;
                                                                                                  DOMAIN
                                                                                                                      TRANSMEM
                                                                                                                                     DOMAIN
                                                                                                                                                       TRANSMEM
                                                                                                                                                                                       TRANSMEM
                                                                                                                                                                                                                                                                                                          DOMAIN
                                                                                                                                                                                                                                                                                                                              TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                 InterPro; IPR000276; GPCR_Rhodpsn.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=9606;
                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          . Neurosci. 5:201-209 (2002).

RUNCTION: Orphan receptor. Probably involved in the function of nociceptive neurons. May regulate nociceptor function and/or development, including the sensation or modulation of pain. Potently activated by enkephalins (By similarity).

SUBCELLULAR LOCATION: Integral membrane protein.
TISSUB SPECIFICITY: Uniquely localized in a subset of small dorsal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIMILARITY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mas subfamily.
              Similarity
                                                              89
322 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              trigeminal
                                                                                                                                                                                                                                                         32
53
61
97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            igeminal sensory neurons.
Belongs to family 1 of G-protein coupled receptors.
                                                                                                 31
52
60
81
96
117
137
158
177
198
2198
239
254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Primates;
                                                                  36423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chordata;
              12.2%;
                                                                  ¥.
              Score 41;
Pred. No.
                                                                               N-linked (GlcNAc
                                                                                                                                 Cytoplasmic (Potential).
6 (Potential).
Extracellular (Potential).
                                                                                                                                                                                   Extracellular (Potential) 5 (Potential).
                                                                                                                                                                                                                                                                                            Cytoplasmic (F
2 (Potential).
                                                                                                                                                                                                                         4 (Potential)
                                                                                                                                                                                                                                       Cytoplasmic
                                                                                                                                                                                                                                                           3 (Potential)
                                                                                                                                                                                                                                                                           Extracellular (Potential)
                                                                                                                                                                                                                                                                                                                                                Extracellular (Potential).
                                                                                                                                                                                                                                                                                                                               1 (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                      (Potential)
                                                                  3D6FFB4B5DDFDD90 CRC64;
                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           It is produced through
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      322 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         noved. Usage by and for commercial
(See http://www.isb-sib.ch/announce/
                DB 1;
9.6e-
                                                                                                                                                                       (Potential).
                                                                                                                                                                                                                                           (Potential).
                                                                                                  (Potential).
                                                                                                                                                                                                                                                                                                              (Potential).
                .6e-32;
                                Length 322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ຫ
                                                                                  (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Roy M.-O.,
Labarre M.,
Payza K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a collaboration
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             outstation
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ᇢ
0,
```

```
RESULT
MRG2_HU
 RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Altschul S.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Schetz T.E.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Schetz T.E.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Schetz T.E.,
RA Stapleton M., Gudin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Robestein M.J., Usdin T.B., Toshiyuki S., Casavant T.L., Schetz T.E.,
RA Robestein M.J., Usdin T.B., Toshiyuki S., Casavant T.L., Mullahy S.J.,
RA Robestein M.J., Wales S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Willalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Wilting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Holten B., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA Holten B., Colchman J.W., Green B.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Rodriguez A.C., Schein J.E., Jones S.J.M., Marra M.A.;
RT and mouse cDNA sequences.",
RT Tosh Sch Ci II S. A 94.16894-16904(2002)
                                                                                                              ganglion.";
J. Biol. Chem.
-!- FUNCTION: O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-OCT-2004
01-OCT-2004
01-OCT-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HUMAN
MRG2 I
                                                                                                                                                                                     PubMed=12915402; DOI=10.1074/jbc.M302456200; Robas N., Mead E., Fidock M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
Suwa M., Sato T., Okouc
Tsutsumi S., Aburatani
"Genome-wide discovery
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            genome sequence.
FEBS Lett. 520:9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                       "MrgX2 is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Takeda S., Kadowaki S., Haga T., Taka
"Identification of G protein-coupled
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nociceptive sensory neurons.";
Cell 106:619-632(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Dong X., Han S.-K., Zylka M.J., Simon M.I., Anderson D.J., "A diverse family of GPCRs expressed in specific subsets o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=21435808; PubMed=11551509;
Dong X., Han S.-K., Zylka M.J., Simon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q96LB1;
                                                                                                                                                                                                                            TISSUE SPECIFICITY, AND POSSIBLE FUNCTION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                receptor genes."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Name=MRGX2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mas-related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=22040266;
nociceptive neurons. May regulate nociceptor function and/or development, including the sensation or modulation of pain. Cortistatin-14 seems to be a high potency ligand at this receptor. Cortistatin has several biological functions including roles in sleep regulation locomotor activity, and cortical function. In receptor-expressing cells, cortistatin-stimulated increases in
                                                                                                               FUNCTION: Orphan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FROM N.A.
                                                                                                                                                                      a high potency
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (JUL-2001) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              520:97-101 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    G-protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (Rel.
(Rel.
(Rel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (Human)
                                                                                                                                 278:44400-44404 (2003)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Okouchi I., Arita M., Futami
atani H., Asai K., Akiyama Y.;
overy and analysis of human se
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PubMed=12044878;
PubMed=12044878;
PubMed=12044878;
PubMed=12044878;
PubMed=12044878;
PubMed=12044878;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         45,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chordata;
Primates;
                                                                                                               receptor. Probably involved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      coupled receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Last
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Last
                                                                                                                                                                                                                                                                U.S.A.
                                                                                                                                                                      cortistatin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sequence
                                                                                                                                                                                                                                                                99:16899-16903 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 330
                                                                                                                                                                    receptor expressed in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   human seven transmembrane helix
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        member X2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Putami K., Matsumoto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ⋧
                                                                                                                 'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  subsets of
                                                                                                                                                                                                                                                                                                   full-length human
                                                                                            function on and/or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   the
                                                                                                                                                                       dorsal root
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   human
                                                                                                                 of
F
```

RESULT 9

Homo sapiens

(Human)

Chordata; Craniata; Vertebrata; Buteleostomi; Primates; Catarrhini; Hominidae; Homo.

protein-coupled

receptor

Last Last MRGX2.

Last annotation

update)

sequence update)

Created)

02-MAR-2004 (TrEMBLrel. 27, 02-MAR-2004 (TrEMBLrel. 27, 02-MAR-2004 (TrEMBLrel. 27,

AAH63450;

PRELIMINARY;

8

Eukaryota; Metazoa; Mammalia; Eutheria; NCBI\_TaxID=9606;

SEQUENCE FROM TISSUE=Brain;

N.A.

```
문
                 Ś
                                                                                 Query Match
Best Local S
Matches 20
                                                                                                                                                                                                          G-protein
DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                             DOMAIN
TRANSMEM
                                                                                                                                                                  DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                 the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                       DOMAIN
TRANSMEM
                                                                                 SEQUENCE
                                                                                                                                                                                                                                                                                                                                             EMBL; AY042214; AAK91805.1; -.
EMBL; AB063626; BAB89339.1; -.
EMBL; AB06362611; BAC06030.1; -.
EMBL; BC063450; AAH63450.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      This SWISS-PROT entry is copyright. It is produced between the Swiss Institute of Bioinformatics and
                                                                                                                          TRANSMEM
                                                                                                                                                                                                                                                                                 PRINTS; PR00237; GECRHODOPSN
PROSITE; PS00237; GEROTEIN_RI
PROSITE; PS50262; GEROTEIN_RI
                                                                                                      VARIANT
                                                                                                                 DOMAIN
                                                                                                                                      DOMAIN
                                                                                                                                                                                                                                                                                                                  Pfam; PF00001;
                                                                                                                                                                                                                                                                                                                           nterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUBCELLULAR LOCATION: Integral membrane protein. TISSUE SPECIFICITY: Has a limited expression profile, peripheral and within the central nervous system, wit levels in dorsal root ganglion.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mas subtamily.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIMILARITY: Belongs to family 1 of G-protein coupled receptors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          intracellular Ca(2+) but had no effect on bas
stimulated cAMP levels, suggesting that this
                                                                                                                                                                                                                                                                                                                                     607228;
224
                                                   Similarity
                   TILLTYLYFLLCGLPFGIQW 251
TILLTVLVFLLCGLPFGIQW
                                                                                                                                                                                                                                                                        coupled
                                                                                                                                                                                                                                                                                                                         IPR000276; GPCR_Rhodpsn
                                                                                 330
                                                                                                     Conservative
                                                                                 AA;
                                                                                                                                                                                                                                                                                                                  7tm
                                                                                                                                                                                                                                                           G PROTBIN RECEP F1 1; 1.

G_PROTBIN_RECEP_F1_2; 1.

G_PROTBIN_RECEP_F1_2; 1.

receptor; Polymorphism; Transmembrane.

33

Extracellular (Potential).
                                                                                                     37099 MW;
                                                  5.9%;
                                        0
                                                  Score 20;
Pred. No.
                                                                                                       Cytopl
                                                                                                                           Cytoplasmic (Potential).
6 (Potential).
Extracellular (Potential)
7 (Potential).
                                                                                            /FTId=VAR
                                                                                                                                                                  Extracellular (Potential) 5 (Potential).
                                                                                                                                                                                                 Cytoplasmic
                                                                                                                                                                                                             3 (Potential)
                                                                                                                                                                                                                    2 (Potential).
Extracellular (Potential)
                                                                                                                                                                                                                                          Cytoplasmic
                                                                                                                                                                                                                                                    1 (Potential)
243
                                                                                  0B328FD78B1DF6BE CRC64
                                                                                                                                                                                       (Potential)
                                          Mismatches
                                                                                                                 asmic
                                                                                                     (in dbsNP:10833049)
                                                                                             019433
                                                   DB 1; Le
7.6e-11;
                                                                                                                (Potential)
                                                                                                                                                                                                   (Potential).
                                                                                                                                                                                                                                           (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      basal or
                                                            Length 330
                                                                                                                                                                                                                                                                                                                                                                                                                                                      and the E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           r forskolin-
ptor is G(q)·
                                                                                                                                                                                                                                                                                                                                                                                                                                                       TRME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              both
                                                                                                                                                                                                                                                                                                                                                                                                                                                       a collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   highest
                                         0
                                        Gaps
                                          0
```

```
RESULT 10
MGA3_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                            REPUBLICE FROM N.A., AND TISSUE SPECIFICITY.

RESTRAIN=C57BL/6; TISSUE=Dorsal root ganglion;

REPULINE=21435808; PubMed=11551509;

REPULINE=21435808; PubMed=11551509;

RADONG X., Han S.-K., Zylka M.J., Simon M.I., Anderson D.J.;

ROOT TO COLOR TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RA Klausher R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D., RA Klausher R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D., RA Altechul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K., RA Altechul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K., RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F., RA Lapleton M.J., Goares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E., Schaetz M.J., Walland N.B., Bonaldo M.F., Casavant T.L., Scheetz T.E., Ra Schapleton M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C., Ra Rownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C., RA Romanstein M.J., Wallano N.A., Peters G.J., Abramson R.D., Mullahy S.J., Ra Romanstein M.J., McKernan K.J., Malek J.A., Gunarathe P.H., Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalon D.K., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., RA Villalon D.K., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Villalon D.K., Worley R.C., Schmutz J., Worling S., Sanchez A., RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S., RA Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E., "Generation and initial analysis of more than 15,000 full-length human T. Generation and initial analysis of more than 15,000 full-length human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S
Matches 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q91WW3;
01-OCT-2004
01-OCT-2004
01-OCT-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-OCT-2004 (Rel. 45, Created)
01-OCT-2004 (Rel. 45, Last sequence update)
01-OCT-2004 (Rel. 45, Last annotation update)
Mas-related G-protein coupled receptor member
Name=Mrgpra3; Synonyms=Mrga3;
Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mammalia; Butheria;
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MGA3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL;
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Strausberg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE=Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=22388257; PubMed=12477932;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mouse cDNA sequences.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         232 TILLTVLVPLLCGLPFGIQW 251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BC063450;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Natl. Acad.
                                                                                subfamily.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (DEC-2003) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAH63450.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sci.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     37099 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 20;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0B328FD78B1DF6BE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 2; Le 7.6e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ₿
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 330;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CRC64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
```

```
RESULT
MGALMG
ID MGAL
MG
AC Q9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S
Matches 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                 "A diverse family of GPCRs expressed in specific subsets of nociceptive sensory neurons.";
Cell 106:619-632(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                   O91WW5;
01-OCT-2004 (Rel. 45, Created)
01-OCT-2004 (Rel. 45, Last sequence update)
01-OCT-2004 (Rel. 45, Last annotation update)
Mas-related G-protein coupled receptor member
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               G-protein
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and fo entities requires a license agreement (See http://www.isb-sib.or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                              coupled receptor)
Name=Mrgpral; Synonyms=Mrgal;
Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRINTS; PR00237; GFCRHODOPSN.
PROSITE; PS00237; GFROTEIN_RECEP_F1_1;
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2;
                                                                                                                                                                                                                          SEQUENCE FROM N.A., SUBCELLULAR LOCATION, AND STRAIN=C57BL/6; TISSUB-Dorsal root ganglion; MEDLINE=21435808; PubMed=11551509; Dong X., Han S.-K., Zylka M.J., Simon M.I., Ar
                                                                                                                                                                                                                                                                                                                                                       Bukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MGA1_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MGD; MGI:2684085; Mrgpra3.
InterPro; IPR000276; GPCR_Rhodpsn.
Pfam: PF00001; 7tm_1; 1.
                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TRANSMEM
               FUNCTION: Orphan receptor. May be a receptor for RFamide-family neuropeptides such as NPFF and NPAF, which are analysisc in vivo May regulate nociceptor function and/or development, including t sensation or modulation of pain.
SUBCELLULAR LOCATION: Integral membrane protein.
TISSUE SPECIFICITY: Expressed in a subset of sensory neurons that includes nociceptors. Expressed in the subclass of nonpeptiderginal contents of the subclass of nonpeptiderginal membrane protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            124 GLSMLSAISTERCLS 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AY042193; AAK91789.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98 GLSMLSAISTERCLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                coupled
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     159
302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ilarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18
39
47
68
82
103
130
151
168
189
212
233
243
264
68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    receptor; Glycoprotein; Transmembrane.
17 Extracellular (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        102
129
150
167
188
211
232
242
263
302
159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              38
46
81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       34483 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Extracellular (Potential).

5 (Potential).

Cytoplasmic (Potential).

6 (Potential).

Extracellular (Potential).

7 (Potential).

Cytoplasmic (Potential).

N-linked (GlcNAc. . .) (Potential).

N-linked (GlcNAc. . .) (Potential).

N-linked (GlcNAc. . .) (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     o;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 15;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Extracellular (Potential).
3 (Potential).
Cytoplasmic (Potential).
4 (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cytoplasmic 2 (Potential
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Extracellular (Potential)
                                                                                                                                                                                                                                                                                                                                                     Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8E4CC023ACA2E4E5 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   304 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 1; L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           There are no restrictions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (Potential).
                                                                                                                                                                                                                                                                                               TISSUE
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Al (RF-amide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (Potential).
                                                                                                                                                                                                                                                                                               SPECIFICITY.
                       ry neurons that nonpeptidergic
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ດ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    d for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ä
                                                                                                         vivo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
```

```
MRGA
                                                                                                                                                                                                                                                                                                                                                  맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
Matches 15
                                                                                                                                                                                                                                         MRGA RAT
Q7TN49;
01-OCT-2004
01-OCT-2004
01-OCT-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
CARBOHYD
                                                                                                 STRAIN-Sprague-Dawley;
STRAIN-Sprague-Dawley;
MEDLINE=22810130; PubMed=12909716; DOI=10.1073/pnas.1732949100;
MEDLINE=22810130; PubMed=12909716; DOI=10.1073/pnas.1732949100;
                                                                                                                                                                                                                            01-OCT-2004 (Rel. 45, Last sequence update)
01-OCT-2004 (Rel. 45, Last annotation update)
Mas-related G-protein coupled receptor member A.
                                                                                                                                                                                                                                                                                                      RAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                     protein-coupled receptor family.";
Proc. Natl. Acad. Sci. U.S.A. 100:10043-10048(2003).
                                                                                             Zylka M.J., Dong X., Southwell A.L., Anders "Atypical expansion in mice of the sensory
                                                                                                                                                                                                      Name=Mrgpra; Synonyms=Mrga;
Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROSITE; PS00237; G_PROTEIN RECEP F1_1; 1.

PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.

G-protein coupled receptor; Glycoprotein; Transmembrane.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL;
                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus
                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRINTS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pfam; PF00001; 7tm_1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             InterPro; IPR000276; GPCR_Rhodpsn.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MGD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through
                                  FUNCTION: Orphan receptor. May regulate nociceptor development, including the sensation or modulation SUBCELLULAR LOCATION: Integral membrane protein.
                      SIMILARITY: Belongs to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIMILARITY: Belongs to family 1 of G-protein coupled receptors. Mas subfamily.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MGI:3033095;
                                                                                                                                                                                                                                                                                                                                                                         124 GLSMLSAISTERCLS 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AY042191; AAK91787.1; -.
                                                                                                                                                                                                                                                                                                                                                  97
                                                                                                                                                                                                                                                                                                                                                                                                 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PR00237; GPCRRHODOPSN
            subfamily.
                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                  GLSMLSAISTERCLS 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        the
                                                                                                                                                                                                                                      (Rel. 45,
(Rel. 45,
(Rel. 45,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18
39
54
75
76
76
76
132
153
1167
1188
207
228
                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Swiss Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                À,
                                                                                                                                                                                                                                                                                        STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mrgpra1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  38
53
74
75
75
131
152
166
187
206
227
243
                                                                                                                                                                                                                                                                                                                                                                                          4.5%; L
100.0%; Pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                34381 MW;
                                                                                                                                                                                                                                                                Created)
                      family
                                                                                                                                                                                                                                                                                                                                                                                                           Score 15;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cytoplasmic
2 (Potential
Extracellula
3 (Potential
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cytoplasmic (Pote N-linked (GlcNAc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cytoplasmic (Potential).
6 (Potential).
Extracellular (Potential).
7 (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of Bioinformatics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4 (Potential).
Extracellular (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cytoplasmic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Extracellular (Potential).
                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                               C56CBF879067A52B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                        õ
                                                                                                                                                                                                                                                                                         304 AA
                     G-protein
                                                                                                                                                                                                                                                                                                                                                                                                            6 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ar (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                (Potential).
(Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                           7e-06;
                                                                                             neuron-specific Mrg
                                                                                                                                                                                                                                                                                                                                                                                                                       Length 304;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      and the
                       coupled receptors
                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                              function and/or of pain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL outstation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    b
                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 collaboration
                                                                                             Q
                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                 0
```

```
RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local !
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                  MGA7 MOUSE
Q91ZC5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                    01-OCT-2004 (Rel. 45, Created)
01-OCT-2004 (Rel. 45, Last sequence update)
01-OCT-2004 (Rel. 45, Last annotation update)
Mas-related G-protein coupled receptor member
Name=Mrgpra7; Synonyms=Mrga7;
Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                         ÷
                                                                                                                                                       MEDLINE-21435808; PubMed=11551509;
DONG X., Han S.-K., Zylka M.J., Simon M.I., Anderson D.J.
"A diverse family of GPCRs expressed in specific subsets
nociceptive sensory neurons.";
                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                            MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               G-protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pfam; PF00001; 7tm_1; 1.

PROSITE; PS00237; G_PROTEIN_RECEP_F1_
PROSITE; PS50262; G_PROTEIN_RECEP_F1_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; AF518238; AAQ08310.1; -. RGD; 738050; Mrgpra.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entities requires a or send an email to
                                                                                                                                                                                                                       SEQUENCE FROM N.A., AND TISSUE SPECIFICITY
                                                                                                                                                                                                                                               NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nterPro;
                       May regulate nociceptor function and/or development, sensation or modulation of pain (By similarity). SUBCELLULAR LOCATION: Integral membrane protein. TISSUE SPECIFICITY: Expressed in a subset of sensory includes nociceptors. Expressed in the subclass of no sensory neurons that are IB4(+) and VR1(-). SIMILARITY: Belongs to family 1 of G-protein coupled
                                                                                                                FUNCTION: Orphan receptor. May be a receptor for RFamide-family neuropeptides such as NPFF and NPAF, which are analgesic in viv
                                                                                                                                          106:619-632 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       124 GLSMLSAISTERCLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15;
             subfamily.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                GLSMLSAISTERCLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               coupled
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ipr000276; GPCR_Rhodpsn.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  equires a license agreement (S email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18
39
47
68
81
102
133
154
168
189
212
233
245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AA;
                                                                                                                                                                                                                                                                                                                                                                                STANDARD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                38
46
67
80
101
132
153
153
167
188
211
232
244
232
244
265
304
34334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               receptor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4.5%; Score 15;
100.0%; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4 (Potential).

Extracellular (Potential).

5 (Potential).

Cytoplasmic (Potential).

6 (Potential).

Extracellular (Potential).

7 (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Transmembrane.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Extracellular (Potential) 3 (Potential). Cytoplasmic (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cytoplasmic (Potential)
4A820A4E0192E8B6 CRC6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Extracellular (Potential).
1 (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cytoplasmic
2 (Potential
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6.7e-06;
                                                                                                                                                                                                                                                                                                                                                                                ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (Potential).
                                                                                                                                                                                                                                                                                                                  A7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 304;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CRC64;
                         coupled receptors
                                                   nonpeptidergic
                                                                 neurons that
                                                                                                                                                                      숅-
                                                                                                     including
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Сарв
                                                                                                      the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
```

This

SWISS-PROT entry is copyright. It is produced through a collaboration

```
MGAB_MOUSE
ID MGAB
AC 09120
DT 01-00
DT 01-00
DT 01-00
DT 01-00
DT 01-00
MAS-x
GN Name-
OS MAS T
GN NAME
RN 1[1]
RP SEQUE
RC STRAI
RA DONG
RT NOC16
RT CC1-1- E
CC -1- E
CC -1- E
CC -1- E
                                                                                                                                                                                                                                                                                                                                                                                            JAB MOUSE
JAB MOUSE
D MGAB MOUSE
D MGAB MOUSE
JAB MOUSE

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SPITITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 15
             DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROSITE; PSO0237; G PROTEIN RECEP F1 1; 1.
PROSITE; PSO0237; G PROTEIN RECEP F1 2; 1.
G-protein coupled receptor; Transmembrane.
DOMAIN
1 17
TRANSMEM 18 38 1 (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MGD; MGI:3033109; Mrgpra7.
InterPro; IPR000276; GPCR_Rhodpsn.
Pfam; PF00001; 7tm_1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TRANSMEM
                                                                                                                                                                                                                                                                 MEDLINE=21435808; PubMed=11551509;
                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRINTS; PR00237; GPCRRHODOPSN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                          ng X., Han S.-K., Zylka M.J., Simon
diverse family of GPCRs expressed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        124 GLSMLSAISTERCLS 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AY042197; AAK91793.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              l Similarity
15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GLSMLSAISTERCLS 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         305 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ₩,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 15;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Extracellular (Potential).
5 (Potential).
Cytoplasmic (Potential).
6 (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 (Potential).
Cytoplasmic (Potential).
2 (Potential).
Extracellular (Potential).
3 (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cytoplasmic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Extracellular 7 (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cytoplasmic
                                                                                                                                                                                                                                                                                                                                                               Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2544FDB3B9E26D39
                                                                                                                                                                                                                                                 Simon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                              n M.I.,
in spec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6.7e-06;
                                                                                                                                                                                                                            I., Anderson specific subs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                            A8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 305;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CRC64;
                                                                                                                                                                                                                              rson D.J.;
subsets of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0,
```

```
RESULT 15
MGA4_MOUSE
   뭉
                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A., SUBCELLULAR LOCATION, AND TISSUE SPECIFICITY.

CETRAIN=C57BL/6; TISSUE=Dorsal root ganglion;

MEDLINE=21435808; PubMed=11551509;

MEDLINE=21435808; PubMed=11551509;

A diverse family of GPCRs expressed in specific subsets of rociceptive sensory neurons.";

Cell 106:619-632(2001).

Cell 106:619-632(2001).

Cell 106:619-632(2001).

The FUNCTION: Oxphan receptor. May be a receptor for RPamide-family neuropeptides such as NPFF and NPAF, which are analgesic in vivo.

May regulate nociceptor function and/or development, including the sensation or modulation of pain.

Cell TISSUE SPECIFICITY: Expressed in a subset of sensory neurons that
                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local :
                                                                                                                                                                                                                                                      Q91wW2;
01-OCT-2004
01-OCT-2004
01-OCT-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    G-protein
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   use by non-profit institutions as long as its content modified and this statement is not removed. Usage by an entitles requires a license agreement (See http://www.isb-or send an email to license@isb-sib.ch).
                                                                                                                                                                 NCBI_TaxID=10090;
                                                                                                                                                                              Bukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                          Mas-related G-protein coupled receptor member A4
                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRINTS; PR00237; GFCRRHODOPSN.
PROSITE; PS00237; GFROTEIN_RECEP_F1_1;
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MGD; MGI:3033111; Mrgpra8.
InterPro; IPR000276; GPCR_Rhodpsn.
Pfam; PF00001; 7tm_1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; AY042198; AAK91794.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Elthe European Bioinformatics Institute. There are no rest
                                                                                                                                                                                                        Mus musculus (Mouse)
                                                                                                                                                                                                                  Name=Mrgpra4; Synonyms=Mrga4;
                                                                                                                                                                                                                               coupled receptor).
                                                                                                                                                                                                                                                                                                       MGA4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
                                                                                                                                                                                                                                                                                                     MOUSE
                                                                                                                                                                                                                                                                                                                                                                                       124 GLSMLSAISTERCLS
                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            coupled
                                                                                                                                                                                                                                                                                                                                                                                                                                                           305
                                                                                                                                                                                                                                                     (Rel. 45, Created)
(Rel. 45, Last sequence update)
(Rel. 45, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18
39
47
68
68
107
130
151
173
173
208
229
244
255
                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                           A,
                                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  receptor; Transmembrane.
17 Extracellular (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           35004 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                     4.5%;
                                                                                                                                                                                                                                                                                                                                                                                      138
                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                         Score 15;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cytoplasmic (Potential).
w-linked (GlcWAc. . .) (Potential).
w-linked (GlcWAc. . .) (Potential).
closes . . .) (Potential).
b6BEB232DA58534F CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Extracellular (Potential)
5 (Potential).
Cytoplasmic (Potential).
6 (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cytoplasmic (Potential).
2 (Potential).
Extracellular (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Extracellular (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cytoplasmic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3 (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4 (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 (Potential)
                                                                                                                                                                              Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                       313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (See http://www.isb-sib.
                                                                                                                                                                                                                                                                                                                                                                                                                         DB 1; L
6.7e-06;
                                                                                                                                                                                                                                                                                                       A
A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                              <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 305;
                                                                                                                                                                                                                                           (RF-amide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   restrictions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a collaboration
                                                                                                                                                                                                                                          G protein-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             for
                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                    VIVO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               commercia
                                       the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                               0
```

neurons that

```
Search completed: October 27, 2004, 08:51:36 Job time : 197 secs
                                                                                                                                                            Query Match
Best Local Similarity
Matches 15; Conserv
                                                                                                                                                                                                                                      CARBOHYD
CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                  DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                        TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRINTS; PRO0237; GFCRHODOPSN.

PROSITE; PS00237; G PROTEIN RECEP F1 1; 1.

PROSITE; PS50262; G PROTEIN RECEP F1 2; 1.

PROSITE; PS50262; G PROTEIN RECEP F1 2; 1.

G-protein coupled receptor; Glycoprotein; Transmembrane.

DOMAIN 1 25 Extracellular (Potential).

TRANSMEM 26 46 1 (Potential).

DOMAIN 47 54 Cytoplasmic (Potential).

TRANSMEM 55 75 2 (Potential).

DOMAIN 76 93 Extracellular (Potential).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   the European Bioinformatics Institute. There are no restrictions on use by non-profit institutions as long as its content is in no modified and this statement is not removed. Usage by and for commen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; AY042194; AAK91790.1; -.
MGD; MGI:3033100; MTGDra4.
InterPro; IPR000276; GPCR Rhodpsn.
Pfam; PF00001; 7tm_1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                entities requires a license agreement (Some send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                            TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       includes nociceptors. Expressed in the subclass of nonpeptidergic sensory neurons that are IB4(+) and VR1(-).
SIMILARITY: Belongs to family 1 of G-protein coupled receptors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mas subfamily.
                                                                                                     124 GLSMLSAISTERCLS 138
                                                                                106 GLSMLSAISTERCLS 120
                                                                                                                                                                                                                                        313 AA;
                                                                                                                                                          4.5%;
ilarity 100.0%;
Conservative (
                                                                                                                                                                                                                                                             35667 MW;
                                                                                                                                                            0
                                                                                                                                                            Score 15; DB 1; Le
Pred. No. 6.8e-06;
0; Mismatches 0;
                                                                                                                                                                                                                                      Cytoplasmic (Potential).
N-linked (GLONAc. . .) (Potential).
N-linked (GLONAc. . .) (Potential).
; 22F3AEC2F2F7127B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                     Cytoplasmic (Potential).
4 (Potential).
Extracellular (Potential).
5 (Potential).
                                                                                                                                                                                                                                                                                                                                                              Cytoplasmic 6 (Potentia:
                                                                                                                                                                                                                                                                                                                                         Extracellular (Potential).
                                                                                                                                                                                                                                                                                                                       (Potential)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (Potential).
                                                                                                                                                                                                                                                                                                                                                              (Potential
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                            (Potential).
                                                                                                                                                                                                 Length 313;
                                                                                                                                                              Indels
                                                                                                                                                            0;
                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       commercial
                                                                                                                                                            0;
```

멍 S

```
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OM nucleic - nucleic search, using sw
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No.
score grea
and is der
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB DB
        949.8

938.6.2

836.2

838.2

838.2

8410.2

2911.2

2911.3

1146.4

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.2

1132.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1123.4

1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 d. No. is the number of results predicted by chance to have a
re greater than or equal to the score of the result being printed,
is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  seq length: 0
seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-867-570-1
2618
1 aacaattgccgcga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Issued Patents NA:*

1: /cgn2_6/ptodata/1/ina/5A_COMB.seq:*

2: /cgn2_6/ptodata/1/ina/5B_COMB.seq:*

3: /cgn2_6/ptodata/1/ina/6A_COMB.seq:*

4: /cgn2_6/ptodata/1/ina/6B_COMB.seq:*

5: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*

6: /cgn2_6/ptodata/1/ina/backfiles1.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IDENTITY_NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      October 29, 2004, 10:19:03; Search time 215 Seconds (without alignments) 8655.094 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        824507 segs, 355394441 residues
                                                                                                                                                                                                                                                                                                   31.9
31.3
31.7
31.7
10.7
5.6
5.0
5.0
5.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Copyright
                                                                                                                                                                                                                                                                         12047
12047
118067
                                                                                                                                                                                                                                                                                                                                                        148567
148567
12047
12047
12047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length DB
        11288
11288
11288
11288
11288
15056
15056
14364
45716
45989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GenCore version 5.1.6 (c) 1993 - 2004 Compugen Ltd.
     US-09-254-227A-4
US-09-254-227A-6
US-09-254-227A-1
US-09-254-227A-1
US-09-254-227A-1
US-09-254-227A-1
US-09-254-227A-1
US-09-254-227A-2
US-09-254-227A-2
US-09-455-050A-164
US-09-456-3
US-09-456-3
US-09-474-699-11
US-09-474-699-11
US-09-474-351-3
US-09-481-351-1
US-09-814-351-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      model
Sequence 4, Appli
Sequence 6, Appli
Sequence 12, Appli
Sequence 14, Appli
Sequence 10, Appli
Sequence 2, Appli
Sequence 30, Appli
Sequence 3, Appli
Sequence 3, Appli
Sequence 3, Appli
Sequence 3, Appli
Sequence 11, Appli
Sequence 11, Appli
Sequence 11, Appli
Sequence 11, Appli
Sequence 12, Appli
Sequence 14, Appli
Sequence 16, Appli
Sequence 17, Appli
Sequence 17, Appli
Sequence 18, Appli
Sequence 19, Appli
Sequence 19, Appli
Sequence 10, Appli
Sequence 11, Appli
Sequence 11, Appli
Sequence 12, Appli
Sequence 13, Appli
Sequence 14, Appli
Sequence 14, Appli
Sequence 5, Appli
Sequence 6, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                               δ
                                                                                                               밁
                                                                                                                                                            र्
                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-254-227A-4
                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                            672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 552
           301
                                                             792
                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                            19
```

Result No.

ი

000

a a

_	_				_	_	_									_	
ი	a				a	Ω	a									ი	
45	44	43	42	41	40	39	38	37	36	35	34	ω u	32	31	30	29	28
102	103	103.6	103	104	105	105	105	110	111.6	111	111	111	_	113	114.	114.	118.6
6	.4			.4	05	.4	.4	80	6	o		o	12	N	N	.4	
з. 9	3.9	4.0	4.0	4.0	4.0	4.0	4.0	4.2	4.3	4.3	4.3	4.3	4.3	4.3	4.4	4.4	4.5
24		31	31	15	ū	17	15							4			
246240	438	319608	319608	152331	54945	176373	152331	2435	1001	1001	1001	1000	505	4453	327	3216	RRFT
N	4.	4	4.	w	Α,	w	w	4.	4.	4	4	4	w	ω	4	N	U
US-08-724-394A-20	US-09-621-976-18282	US-09-679-409-1	US-09-539-333D-1	US-09-128-155-16	US-09-967-669-10	US-09-128-155-17	US-09-128-155-16	US-09-484-970B-134	US-09-671-317-222	US-09-671-317-220	US-09-671-317-219	US-09-671-317-221	US-09-227-357-73	US-09-146-053-5	US-09-513-999C-25490	US-08-828-007-1	PCT-US93-U6251-26
Sequence 2	Sequence 1	Sequence 1	Sequence 1	Sequence 1	Sequence 1	Sequence 1	Sequence 1	Sequence 1	Sequence 2	Sequence 2	Sequence 2	Sequence 2	Sequence 7	Sequence 5	Sequence 2	Sequence 1	sequence 4
20, Appl	18282, A	1, Appli	l, Appli	16, Appl	0, Appl	17, Appl	16, Appi	134, App	222, App	220, App	219, App	221, App	73, Appl	5, Appli	25490, A	l, Appli	rddw 'or

## ALIGNMENTS

Minimum Maximum

Sequence:

Title:

```
; SEQ ID NO 4
; LENGTH: 969
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-254-227A-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Ahmad, Sultan
APPLICANT: Banville, Denis
APPLICANT: Fortin, Yves
APPLICANT: Fortin, Yves
APPLICANT: Lembo, Paola
APPLICANT: O'Donnell, Dajan
APPLICANT: O'Donnell, Dajan
APPLICANT: Shi-Hsiang, Shen
TITLE OF INVENTION: G Protein-Coupled Receptors from the Rat
FILE REFERENCE: 81823/268117
CURRENT APPLICATION NUMBER: US/09/254,227A
CURRENT FILING DATE: 1999-03-03
NUMBER OF SEQ ID NOS: 22
SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 4, Application US/09254227A
Patent No. 6696257
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 957; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           492 ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG
                                                                                                                                                                                                                                                                                               GCGCTGACAGGAAACGCGGTTGTGCTTCTGGCTTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                                                                                                                                                                                                                                     ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTTCCCTTTGTC 611
                                                                                                                                                                                                    ACTCCTTGCTACAACCAAACCCTGAGCTTCACGGGGCTGACGTGCATCATTTCCCTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGGATCCAACCATCCCAGTCTTGGGTACAAAACTGACACCAATCAACGGACGTGAGGAG
GTGATGACCTTTCCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGC
                       GTGATGACCTTTCCCCTACTTTATAGGCCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGC
                                                                                        ATATTTTCGCCGTTACCCCTCATCAATATCCGCCATCCCAATCTCCAAAATCCTCAGTCCT
                                                                                                                    ATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCCATCTCCAAAAATCCTCAGTCCT
                                                                                                                                                                            GTCTCCATCTACATCCTCAACCTGGTCGCGGCCAACTTCCTCTCCTTAGCGGCCACATT
                                                                                                                                                                                                                                                                     GCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        36.3%;
98.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 949.8; DB 4;
Pred. No. 2.2e-263;
0; Mismatches 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 969;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                              851
    360
                                                                                           300
                                                                                                                                                                                                                                                                                                                 671
                                                                                                                                       791
                                                                                                                                                                               240
                                                                                                                                                                                                                           731
                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
```

611

60

791 240 731

```
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Banville, Denis
APPLICANT: Banville, Denis
APPLICANT: Lembo, Paola
APPLICANT: Lembo, Paola
APPLICANT: Shi-Hstang, Shen
TITLE OF INVENTION: G Protein-Coupled Receptors from the Rat
FILE REFERENCE: 81823/568117
CURRENT APPLICATION NUMBER: US/09/254,227A
CURRENT FILING DATE: 1999-03-03
NUMBER OF SEQ ID NOS: 22
SOFTWARE: Patentin version 3.0
SEQ ID NO 6
LENGTH: 969
TYPE: DNA
ORGANISN: Homo sapiens
                                                                                                                                                                                                                                                                                                                                      RESULT 2
US-09-254-227A-6
                                                                                                                                                                                                                                                                                                           Sequence 6, Application US/09254227A Patent No. 6696257
            Query Match
Best Local Similarity
Matches 950; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             852
                                                                                                                                                                                                                                                                                                                                                                                                          GAGCAGTGA 1460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCCCAGATACCTGTCATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGGAAGCAGATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTTCCATGTTTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATCGCGTGGCTGTTTTTTATGTGTGGTTCTCTGTGGGTCCAGCCTGGTCCTGCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                              GAGCAGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGATCCACCTGGAATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTTCCATTTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC
            35.9%;
ilarity 98.0%;
Conservative
             0;
            Score 938.6; DB 4;
Pred. No. 3.7e-260;
0; Mismatches 19;
                                       Length
                                         969;
                                                                                                                                                                                                      Rat and
             0
               Gaps
                                                                                                                                                                                                      Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               911
             ٥,
RESULT 3
US-09-254-227A-12
; Sequence 12, Application US/09254227A
; Patent No. 6696257
                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                    8
                                                                                                                                   밁
                                                                                                                                                      Ś
                                                                                                                                                                                        밁
                                                                                                                                                                                                               S
                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                     片
                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                문
                                                                                                          1452
                                                                                                                                                                                                                                                                       1272
                                                                                                                                                                                                                                                                                                                                                                                1152
                                                                                                                                                                                                                                                                                                                                                                                                                                     1092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1032
                                                                                                                                                             1392
                                                                                                                                                                                                                                                                                                                           1212
                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                        841
                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                     199
                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            492
                                                                                961
                                                                                                                                    901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ш
                                                                                                                                                                                                                                                                                                                                                    ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCCAATCAACGGACGTGAGGAG
                                                                                                                                                                                        CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                          GTCATGTGTGTGCTGCTGGGGCCCCGTCCCTGCTGCGGAGTATCCTGGAGTGGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCATCTCCAAAATCCTCAGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCTCTTCCTTAGCGGCCACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGGATCCAACCGTCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG
                                                                                                        GAGCAGTGA
                                                                                                                                                                                                                                                                                                AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATCGCGTGGCTGTTTTTTTACGTGTGGTTCTCTGTGGGTCCAGCCTGGTCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCTGTGGGTCCAGCCTGGTCCTGGTC 1091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTCATGTGTGTGCTGTGGGGCCCTGTCCCTGCTGCGGAGTATCCTGGAGTGGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGATGACCTTTCCCCTACTTTATAGGCCTAAGCATCCTGAACGCCATCAGCACCGAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTGATGACCTTTCCCCTACTTTATAGGCCCTAAGCATGCTGAGCGCCCATCAGCACCGAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCGCTGACAGGAAACGCGGTTGTGCTCTTGGCTCCTTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGGCTGACGTGCATCGTTTCCCTTGTC
                                                                                GAGATCTGA
                                                                                                                                    GTGGATGAAGGTGGATGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAAATTG
                                                                                                                                                     GTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTG 1453
                                                                                                                                                                                                                                             TCCGCTCTTAACAGCAGTGCCAACCCCCATCATTTACTTCTTCATGGGCTCCTTTAGGCAG
                                                                                                                                                                                                                                                            TCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTCGGTGTGAAACGTCAGATTTCATTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTTGGTGTGAAACGTCAGATTTCATTACA 1031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCCCCAGATACCTGTCATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGCCTGTCCATCCTGTGGCCCCATCTGGTACCACTGCCGCCCCCCAGATACCTGTCATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 . 1460
                                                                                969
```

540

480 971 420 911 360 851 300

600

음 성 음

5 뮹 Ś 유 성 멍 5 뮍 S 밁 S 밁 Ş 문 δ 닭 Ś

몽 Ś

ន

960

1391

900

1331 780 1271

```
ð
                                                                                                                                                                                                                                                                                 ક
                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                          당
                                                                            S
                                                                                                                     밁
                                                                                                                                            ঠ
                                                                                                                                                                             문
                                                                                                                                                                                                                                                           뭐
                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                               B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; SOFTWARE: PatentIn veri
; SEQ ID NO 12
; LENGTH: 969
; TYPE: DNA
; ORGANISM: Homo Bapiens
US-09-254-227A-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:

APPLICANT: Ahmad, Sultan
APPLICANT: Banville, Denis
APPLICANT: Fortin, Yves
APPLICANT: Fortin, Yves
APPLICANT: Compell, Dajan
APPLICANT: Compell, Dajan
APPLICANT: Shi-Hsiang, Shen
TITLE OF INVENTION: G Protein-Coupled Receptors from the Rat and Human
FILE REPERENCE: 81823/268117
CURRENT APPLICATION NUMBER: US/09/254,227A
CURRENT FILING DATE: 1999-03-03
NUMBER OF SEQ ID NOS: 22
SOFTWARE: Datator Terrical Compensation of SEQ ID NOS: 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 31.9%;
Best Local Similarity 91.4%;
Matches 886; Conservative
                   1212
                                                                                                                                                       1092
                                                                                                                                                                                                                         1032
                                                                                                                                                                                         541
                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                             972
                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                               912
                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                   852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          492 ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG 551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 GGACTGÁCAGGAAACGCGGTTGTGCTCCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    _
AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTTCCTG
                                                                         ACAGTGCTGGTCTTCCTCCTCTGTGGCCCTGCCCTTTTGGCATTCAGTGGGCCCCTGTTTTTCC
                                                                                                                                                  AGGATTCTCTGTGGATCCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC 115:
                                                                                                                                                                                         GTCGCGTGGCTGATTTTTTATGTGTGGTTCTCTGTGTTTTCCAGCCTGGTCCTGCTGGTC
                                                                                                                                                                                                             ATCGCGTGGCTGGTTTTTTTATGTGTGGGTTCCTCTGTGGGTCCAGCCTGGTCCTGGTC
                                                                                                                                                                                                                                                                                             TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACA
                                                                                                                                                                                                                                                                                                                                                                                                                     TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCCCAGATACCTGTCATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCCATCAGCACCGAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATACGTTCGCCATTACGCCTCATCAATATCAGCCATCTCATCCGCAAAATCCTCGTTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCCATCTCCAAAATCCTCAGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GICTCCATCTACATCCTCAACCTGGCCGCAGCAGCAGCTTCCTCTCCTCAGCTTCCAAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCTTTCCTTTAGCGGCCACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGTGCTGACGTGCATCATTTCCCTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCCTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGGATCCAACCGTCCCAGTCTTGGGTACAAAACTGACACCAATCAACGGACGTGAGGAG
                                                     ACAGTGCTGGTCTTCCTCCTCCGGCCTGCCCTTCGGCATTCTGGGGGCCCCTAATTTAC
                                                                                                                                                                                                                                                             TGTGACTTCCTGTTTAGTGGTGCTGATTCTAGTTGGTGTGAAACGTCAGATTTCATCCCA
                                                                                                                                                                                                                                                                                                                                 GTCGTGTGTGCCTCTGGGGGCCTGTCCCTGCTTTAGTATGCTGGAGTGGAGGTTC
                                                                                                                                                                                                                                                                                                                                                                 GTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGCTGCGAGTATCCTGGAGTGGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                 TGCCTGTCTGTTGTGGCCCATCTGGTACCGCTGCCGCCCCCCACACACCTGTCAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTGATGACCTTTCCCTACTTTACAGGCCTGAGTATGCTGAGCGCCATCAGCACCGAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 836.2; DB 4;
Pred. No. 1.2e-230;
0; Mismatches 83;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 969;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                           1091
                                                                                                                                                                                                                                                                                             1031
                                                                                       1211
                   1271
                                                                                                                                                                                         600
                                                                                                                                                                                                                                                                                                                                                                 971
                                                                                                                                                                                                                                                                                                                                                                                                                                   911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
                                                     720
                                                                                                                       660
                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
```

```
RESULT 4
US-09-254-227A-8
; Sequence 8, Application US/09254227A
; Patent No. 6696257
                       8
                                                                문
                                                                                              ঠ
                                                                                                                                   밁
                                                                                                                                                              र्
                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                           á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-254-227A-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: P
SEQ ID NO 8
LENGTH: 969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Ahmad, Sultan
APPLICANT: Banville, Denis
APPLICANT: Fortin, Yves
APPLICANT: Lembo, Paola
APPLICANT: Lembo, Paola
APPLICANT: O'Donnell, Dajan
APPLICANT: Shi-Haiang, Shen
TITLE OF INVENTION: G Protein-Coupled Receptors from the Rat and Human
FILE REFERENCE: 81823/268117
CURRENT APPLICATION NUMBER: US/09/254,227A
CURRENT FILING DATE: 1999-03-03
RUMBER OF SEQ ID NOS: 22
RUMBER OF SEQ ID NOS: 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                884;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841
                                852
                                                                 301
                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                           612
                                                                                                                                                                                                                                                                                                                                                                                                                                  492 ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG
361
                                                                                                   792
                                                                                                                                   241
                                                                                                                                                                   732
                                                                                                                                                                                                                                                                                                                                                                              552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                              ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCTTGTC
                                                                                                                                                                                                                          GCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT 671
                                                                                                                                                                                                                                                                                                                                                                                                              ATGGATCCAACCGTCTCAACCTTGGACACAGAACTGACACCAATCAACGGAACTGAGGAG
                   TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCCCAGATACCTGTCATCG
                                                                   GTGATGATGTTTTCCTACTTTGCAGGCCTGAACTTTCTGAGTGCCGTGAGCACCGATCGC
                                                                                     GTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGC
                                                                                                                                   ATATATTCCCTGTTAAGCTTCATCAGTATCCCCCATACCATCTCTAAAATCCTCTATCCT
                                                                                                                                                       ATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCATCTCCAAAATCCTCAGTCCT
                                                                                                                                                                                                     TTCTCCATCTACATCCTCAACTTGGCCGCAGCAGCTTCCTCCTCAGCGGCCGCCTT
                                                                                                                                                                                                                                                                         GGGCTGACAGGAAACGCAGTTGTACTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCC
                                                                                                                                                                                                                                                                                                                                           ACTCTTTGCTACAAGCAGACCTTGAGCCTCACGGTGCTGACGTGCATCGTTTCCCCTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGCAGTGA 1460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTGGATAAAGGTGAAGGCAGCTTCCTGAGGAAAGCCTGGAGCTGTCGGGAAGGAGATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTG 145:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACAAGCCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG 1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCCTCTCTAAACAGTAGTGCCAACCCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG 1331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGATGCACCTGAATTTGGAAGTCTTATATTGTCATGTTTATCTGGTTTGCATGTCCCTG
 TGCCTGTCCGTCCTGTGGCCCATCTGGTACCGCTGCCACCCCCCACACACCCTGTCAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGGCCATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                31.8%;
ilarity 91.2%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 833; DB 4; Length 969; Pred. No. 1e-229; 0; Mismatches 85; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
   420
                                                                   360
                                                                                                                                                                                                                                                                                                                                                                              611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          960
                                   911
                                                                                                                                                                                                                                         731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            900
                                                                                                     851
                                                                                                                                     300
                                                                                                                                                                       791
                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                60
                                                                                                                                                                                                                                                                                                                                                                                                                                                  551
                                                                                                                                                                                                                                                                                                                                              120
```

음 성

밁 δ 밁 S 밁

180

671

300 791 240

```
SOFTWARE: Paten
SEQ ID NO 14
LENGTH: 969
TYPE: DNA
ORGANISM: Homo s
                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 14, Application US/09254227A
Patent No. 6696257
                                                                                 Query Match
Best Local Similarity
Matches 882; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                          APPLICANT: Ahmad, Sultan
APPLICANT: Banville, Denis
APPLICANT: Borville, Denis
APPLICANT: Fortin, Yves
APPLICANT: Lembo, Paola
APPLICANT: Commell, Dajan
APPLICANT: Shi-Hsiang, Shen
TITLE OF INVENTION: G Protein-Coupled Receptors from the
FILE REFERENCE: 81823/268117
CURRENT APPLICATION NUMBER: US/09/254,227A
CURRENT FILING DATE: 1999-03-03
NUMBER OF SEQ ID NOS: 22
NUMBER OF SEQ ID NOS: 22
                                                                                                                                                   -09-254-227A-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                   492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGCAGTGA 1460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTCATGTGTGTCCTGGGCCCTGGGCCCTGCTGCGGAGTATCCTGGAGTGGATGTTC 971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGCAGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACAGTGCTGGTCTTCCTCTGTGGCCCTGTCCCCTTTTGCCATTCAGTGGGCCCTGTTTTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTCGCGTGGCTGATTTTTTTATGTGTGGTTCTCTGTGGGTCCAGCCTGGTCCTGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATCGCGTGGCTGGTTTTTTTATGTGTGGGTCCTGTGGGTCCAGCCTGGTCCTGCTGGTC
                 GTGGATGAAGGTGGAGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGTGGCTTCCTGTTCAGTGGTGCTGATTCTGCTTGGTGTCAAACATCAGATTTCATCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCCTTAGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACAGTACTGGTCTTCCTCTGTGGCCTGCCCTTTGGCATTCAGTTTTTCCTATTTTTA
                                                                                                                                                                                                                                  PatentIn
                                                                                                                                                                 sapiens
                                                                                                                                                                                                                                  version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                969
                                                                                                31.7%;
                                                                                 Score 829.8; DB 4;
Pred. No. 8.6e-229;
0; Mismatches 87;
                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                  Rat
                                                                                 0;
                                                                                                                                                                                                                                                                                                                  and
                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1091
                    60
                                                   551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                RESULT 6
US-09-254-227A-10
                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                   吊
Sequence 10, Application US/09254227A
Patent No. 6696257
GENERAL INFORMATION:
APPLICANT: Ahmad, Sultan
APPLICANT: Banville, Denis
APPLICANT: Fortin, Yves
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1032
                                                                                                                                                                                                                                                                                                                                                                                                 1272
                                                                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATCGCGTGGCTGTTTTTTTATGTGTGGGTTCTCTGTGGGTCCAGCCTGGTCCTGCTGGTC
                                                                                                                                                                                                                                                      GTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTG 145:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTGATGACCTTTCCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGC 851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTCTCCATCTACATCCTCAACCTGGCCGCAGCAGACTTCCTCTCTCAGCTTCCAAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGCAGTGA
                                                                                                                                                                                                                                                                                                 CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTCGTGTGGCTGATTTTTTTATGTGTGTGTTCTCTGTGTTTTCCAGCCTGGTCCTGCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACA 1031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTCATGTGTGTCCTGCGCCCTGGGCCCTGCCGGAGTATCCCTGGAGTGGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTGATGACCTTTCCCTACTTTACAGGCCTGAGTATGCTGAGCGCCATCAGCACCGAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCATCTCCAAAATCCTCAGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCGCTGACAGGAAACGCGGTTGTGCTCTTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                                                                                                                                                                                                                     TCCTCTAAACAGTAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG
                                                                                                                                                                                                                                                                                                                                                                                      AGGATGCACCTGAATTTGGAAGTCTTATATTGTCATGTTTATCTGGTTTGCATGTCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACAGTGCTGGTCTTCCTCCTGCGGCCCTGCCCTTCGGCATTCTGGGGGCCCTAATTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACAGIGCIGGICTICCTCCTCTGIGGCCTGCCCTTTGGCATTCAGIGGGCCCTGTTTTCC 1211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGATCCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGATICICIGIGGATCCCGGAAGAIGCCGCGGCCAGGCIGTACGTGACCAICCCICCIC 1151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTCGTGTGTGTCCTGCTCTGGGGCCTGTCCCTGCTTTAGTATGCTGGAGTGGAGGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCCCAGATACCTGTCATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATACGTTCGCCATTACGCCTCATCAATATCAGCCATCTCATCCGCAAAATCCTCGTTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTCTCCATCTACATCCTCAACCTGGTCGCCGGCCGACTTCCTCTTCCTTAGCGGCCACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGACTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTACCGCATGCGCAGGAACGCT
                                                                                                                                                                                                   1460
```

1391

900

840

1271

720

660

1091

600

971

420

480

δ 뭐 ક 뮹 S 뮹 ঠ 밁 δ 밁 ð

뮍 5

```
APPLICANT: Lembo, Paola
APPLICANT: O'Donnell, Dajan
APPLICANT: O'Donnell, Dajan
TITLE OF INVENTION: G Protein-Coupled Receptors from the Rat and Human
FILE REFERENCE: 81823/268117
CURRENT APPLICATION NUMBER: US/09/254,227A
CURRENT FILLING DATE: 1999-03-03
NUMBER OF SEQ ID NOS: 22
SOFTWARE: PatentIn version 3.0
SEQ ID NO 10
LENCTON.
                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; LENGTH: 969
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-254-227A-10
                                           문
                                                                            ঠ
                                                                                                        음 성
                                                                                                                                                                            밁
                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 31.6%;
Best Local Similarity 90.8%;
Matches 880; Conservative
                   1272
                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                         912
                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   492 ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   _
TCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG 1331
                                                                                                                                              ACAGTGCTGGTCTTCCTCCTCTGTGGCCTTTTGGCATTCAGTGGGCCCTGTTTTCC 121:
                                                                                                                                                                                                          AGGATTCTCTGTGGATCCCGGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC
                                                                                                                                                                                                                                                                        ATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCTGTGGGTCCAGCCTGGTCCTGGTC 109:
                                                                                                                                                                                                                                                                                                                                         TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACA 1031
                                                                                                                                                                                                                                                                                                                                                                                         GTGGTGTGTCCTGCTCTGGGCCCTGTCCCTGCTGCGGAGCATCCTGGAGTGGATGTTA 480
                                                                                                                                                                                                                                                                                                                                                                                                           GTCATGTGTGTGCCTGTGGGGCCCTGTCCCTGCTGCGGAGTATCCTGGAGTGGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCCCAGATACCTGTCATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GIGATGATGTTTTCCTACTTTGCAGGCCTGAGCTTTCTGAGTGCCGTGAGCACCGAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCAATCTCCAAAATCCTCAGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCTCCATCTACATCCTCAACTTGGCCGCAGCAGACTTCCTCTCCTCCTCAGCGGCCGCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTCTCCATCTACATCCTCAACCTGGTCGCCGGCCGACTTCCTTTCCTTTAGCGGCCACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGCTGACAGGAAACGCGGTTGTGTCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCGCTGACAGGAAACGCGGTTGTGCTCCTGGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGGATCCAACGGTCTCAACCTTGGACACAGAATTGACACCAATCAACGGAACTGAGGAG
                                                                         AGGATCCACCTGGAATTGGAAAGTCTTATTTTGTCATGTGGCATCTAGTTTCCATTTTCCTG 127.
                                                                                                                      ACAGTACTGGTCTTCCTCCTCTGTGGCCTTTTGGCATTCAGTTTTTTCCTATTTTTA 720
                                                                                                                                                                                                                                                       GTCGCGTGGCTGATTTTTTTATGTGTGGGTTCTCTGTGGGTTCCAGCCTGGTTCCTGATC
                                                                                                                                                                                                                                                                                                                         TGTGGCTTCCTGTTCAGTGGTGCTGATTCTGCTTGGTGTCAAACATCAGATTTCATCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGCCTGTCCGTCGTGGCCATCTGGTACCGCTGCCACCCCCCACACCCTGTCAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATATATTCCCTGTTAAGCTTCATCAGTATCCCCCATACCATCTCTAAAATCCTCTATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACTCTTTGCTACAAGCAGACCTTGAGCCTCACGGTGCTGACGTGCATCGTTTCCCCTTGTC
                                                                                                                                                                                        AGGATTCTCTGTGGATCCCGGAAGATACCGCTGACCAGGCTGTACGTGACCATCCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 826.6; DB 4;
Pred. No. 7.2e-228;
0; Mismatches 89;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                      1151
                                                                                                                                                                                                                                                                                                                                                                                                                            971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60
                                                     780
                                                                                                                                                                                        660
                                                                                                                                                                                                                                                         600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
```

```
Lembo, Paola

LICANT: O'Donnell, Dajan

APPLICANT: Shi-Hsiang, Shen

TITLE OF INVENTION: G Protein-Coupled Receptors from the Rat and Human

FILE REFERENCE: 81823/268117

CURRENT APPLICATION NUMBER: US/09/254,227A

CURRENT FILING DATE: 199-03-03

NUMBER OF SEQ ID NOS: 22

SOFTWARE: Patentin version 3.0

SEQ ID NO 2

LENGTH: 1011

TYPE: DNA

ORGANISM: rat
US-09-254-227A-2

Que---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                5
                                                밁
                                                                             S
                                                                                                               밁
                                                                                                                                    5
                                                                                                                                                                      밁
                                                                                                                                                                                                8
                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 655; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         961
                         871
                                                       374
                                                                                                                                                                                                                                  194
                                                                                                                                                                                                                                                               646
                                                                                                                                                                                                                                                                                          134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      781
434
                                                                                                                                                                         254
                                                                                                                                                                                                      706
                                                                                                                                                                                                                                                                                                             GGCTGACGTGCATCGTTTTCCCCTTGTCGCGCTGACAGGAAAACGCGGTTTGTGCTCTGGCTCC 645
                                                                                                                                                                                                                                                                                                                                                                                                                               GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC 525
                                                                                                                                                                                                                                                                                            TCCTGGTCCCCATCATCACCCTGCTTGGATTGGCAGGAAACACCATTGTACTCTGGCTCT 193
                                                                                                                                                                                                                                                                                                                                                      CTACAACACTGAATAAAACTGGTCA---TCCCAGTTGCAGGCCAATCCTCACCCTGTCCT 133
                                                                                                                                                                                                                                                                                                                                                                                TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG 585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGCAGTGA 969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTG 1451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACGCGTCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG
CAATCTGGTACCACTGCCACCGCCCAAGAAACATGTCAGCTATTATATGTGTTCTAATCT
                   TTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGC
                                                                                                            ACTTCCTCTTAGCGGCCACATTATATGTTCGCCGTTACGCCT-------
                                                                                                                                                                                                                                   TGGGATTCCGCATGCGCAGGAAAGCCATCTCAGTCTACGTCCTCAACCTGTCTCTGGCAG
                                                                                                                                                                                                                                                   GGGACACTACTGGAAGATTTGTGAGCATGGATCCAACCATCTCATCCCTCAGTACAGAAT 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGCAGTGA 1460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTGGATGAAGGTGGAGGGCAGCTTCCTGAGGAAATCCTGGAGCTGTCGGGAAGCAGATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCGCTCTTAACAGCAGTGCCAACCCCATCATTACTTCTTCGTGGGCTCCTTTAGGCAG
                                                                                                                                         - CATCAATATCCGCCATCCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACT
                                                                                                                                                                         ACTCCTTCTTCCTCTGCTGCCATTTTATTGACTCTCTGATGCGGATCATGAACTTCTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15.7%;
ilarity 65.6%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 410.2; DB 4;
Pred. No. 8.4e-108;
0; Mismatches 323;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21;
                              930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       840
   493
                                                          433
                                                                                                                                               810
                                                                                                                                                                                                        751
```

```
APPLICANT: Roopa, Reddy
APPLICANT: Guegler, Karl, J.
APPLICANT: Guegler, Karl, J.
APPLICANT: Guegler, Karl, J.
APPLICANT: Au-Young, Janice
FITTLE OF INVENTION: COMPOSITION FOR DETECTION OF GEN
FILE REFERENCE: PA-0013 US
CURRENT APPLICATION NUMBER: US/09/495,050A
CURRENT FILING DATE: 2000-01-31
PRIOR APPLICATION NUMBER: 60/118,318
PRIOR APPLICATION NUMBER: 60/118,318
PRIOR FILING DATE: February 1, 1999
NUMBER OF SEQ ID NOS: 305
SOFTWARE: PERL PROGRAM
SEQ ID NO 164
LENGTH: 291
TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 8
US-09-495-050A-164
; Sequence 164, Application US/09495050A
; Patent No. 6492505
                   á
                                                        밁
                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ई
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 뭕
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                             US-09-495-050A-164
                                                                                                                                    Matches
                                                                                                                                                    Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                              FEATURE:
NAME/KEY: misc_feature
OTHER INFORMATION: Incyte ID No. 6492505 1909132CT1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               494 GGGTTCTGTCCTTTCTCATGGGCATCCTTGACTGGTTTTTCTCAGGATTCCTG---GGTG 550
                                                                                                                                  291;
                                                                                                                                                    Similarity
AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC
                                                                                               CGCCATCCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGAT 1449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCAAAATGGTTCTTAAAAGGGCTCTGGAGGAGACTCCTGAGGAGGATGAATATACAGACA 970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCAACCCCATCATTTACTTCCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACC 1350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCTGTGGCCTGCCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGA 1230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCC 1170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TATGTGTGGTTCTCTGTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCC 1110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGACTCACCATCATTTGTGGAAAAATGTTGACTTTATTGTAACTGCATTTCTGATTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGCTGATTCTGTTTTGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTT 1050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGCCCTGTCCCTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGT 1410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTG 1290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCATGTTCAGAAACCCCACTGAGATCTCAGAAAGGAGAT 1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCAACCCCATCATTTACTTCCTTGTAGGGTCCTTTAGGCACCGTAAAAAGCATCGGTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TATTTATGCTTCTCTTTGGGTCCAGTCTGGCGCTACTGGTGAGGATCCTCTGTGGTTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTATCCCTTTTGTCACATTTACCAAGTTACTGTGCTCCTGTCCTGTGTGAACAGCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCTGCGGCCTGCCTCTCGGGCTTTACTTGTTCCTGCTATATTGGTTTTGGGATCCATTTAC
                                                                                                                                    Conservative
                                                                                                                                                    11.1%; Score 291; DB 4; 1 100.0%; Pred. No. 8.5e-74;
                                                                                                                                  0
                                                                                                                                    Mismatches
                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENES ENCODING MEMBRANE-ASSOCIATED
                                                                                                                                                                      Length 291;
                                                                                                                                    Indels
                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       610
                       881
                                                          60
                                                                                               821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    990
                   S
                                                          밁
                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            皮
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
```

```
RESULT 9
US-09-016-434-330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                               US-09-016-434-330
                                                                                                                                                               Query Match
Best Local &
                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Patent No. 650093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: Janice Au-Young
APPLICANT: Jeffrey J. Seilhamer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 330,
                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: (650) 845-41
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                       TOPOLOGY: line
IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTORNEY/AGENT INFORMATION:
NAME Zeller, Karen J.
REGISTRATION NUMBER: 37,071
REFERENCE/DOCKET NUMBER: PA
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC COMPAtible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WORD Perfect 6.1 for Windows/MS-DOS 6.2
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/016,434
                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
LENGTH: 275 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 1490
CORRESPONDENCE ADDRESS:
ADDRESSEE: INCYTE PHARMACEUTICALS, INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: COMPOSITION FOR THE DETECTION OF SIGNALING TITLE OF INVENTION: PATHWAY GENE EXPRESSION
                                                                                                                                                                                                                                                                                                                                                                                                                          JIECUTELE (650)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CITY: PALO ALTO
STATE: CALIFORNIA
                                                                                                                                                                                                                                               CLONE: 1909132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY:
                                                                                                                                                                                                                                                                                                                               STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1002
822 AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        882 CACTGCCGCCGCCCAGATACCTGTCATCGGTCATGTGTGTCCTGTCCTGGGCCCTGTCC 941
                                                                                                     762 CGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA 821
                                                                                                                                               275;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCCATCTGGTAC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          94304
                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTTTGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTA 1052
                                                               CGCCATCCCCAAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTTTGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT 1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CACTGCCGCCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3174 PORTER DRIVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Application US/09016434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               USA
                                                                                                                                             10.5%; Score 275; DB 4; ilarity 100.0%; Pred. No. 3.4e-69; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                       CONNTUTOI
                                                                                                                                                                                                                                                                                                            linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                       (650)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HEREWITH
                                                                                                                                                                                                                                                                                                                             single
                                                                                                                                                                                                                                                                                                                                                                                                                                845-4166
                                                                                                                                                                                                                                                                                                                                                                                                                                                       855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PA-0002 US
                                                                                                                                                                                     Length 275;
                                                                                                                                                 Indels
                                                                                                                                               0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     291
                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                           881
                                                                                                                                                 0
```

```
Sequence 3, Application US/10254869
Patent No. 6653117
GENERAL INFORMATION:
APPLICANT: YE, Jane et al
TITLE OF INVENTION: ISOLATED HUMAN K
TITLE OF INVENTION: ACID MOLECULES |
TITLE OF INVENTION: THEREOF
                                                                                                                                   RESULT 11
US-10-254-869-3/c
                                                                                                                                                                                                                                            ঠ
                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ફ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 10
US-09-801-876B-3/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-801-876B-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: YE, Jane et al
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 3, Application US/09801876B Patent No. 6492155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: 1
SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: DNA
ORGANISM: Human
PEATURE:
NAME/KEY: misc_feature
LOCATION: (1)...(148567)
OTHER INFORMATION: n = A,7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: ISOLATED HUMAN KINASE PROTEINS, NUCLEIC TITLE OF INVENTION: ACID MOLECULES ENCODING HUMAN KINASE PROTEINS, TITLE OF INVENTION: THEREOF FILE REPERENCE: CL001160
CURRENT APPLICATION NUMBER: US/09/801,876B
CURRENT FILING DATE: 2001-03-09
NUMBER OF SEQ ID NOS: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 148567
                                                                                                                                                                                                                                                                                                                                                                                                                                        50439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1002
                                                                                                                                                                                                                                                                                                                                                                                                   143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           209;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      27 ATGAAATCTAGTTGTTTAAAAGCGTGTAGCACCTC---CTCCCTCTCTCTCTACTCCTGCT 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                      AATGAACTAATACACAGACA 282
                                                                                                                                                                                                                                                                                                           GTTAAACCCATTTCCTTCATAAATTTTCCCAGTCTCAGGTATTTCTTTTTAGCAATTTGAG 262
                                                                                                                                                                                                                                                                                                                                                                                       AGGCCTCCCCAGAAGCAGAAGCTGCTATGCTTTGTACAGTCTGTAGAGCTATTAGCCA 202
                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCACCATGTGAGATGCCCTGCTCCCCTTTTTGCCTTCCACAATGATTGGAAGCTTCCTG 50380
                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCACCATGTGAGACGCCTCGCTCCCC-CTTTGCCTTTCACCAGGATTGGAAGCTTCCTG 142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTTTGGTGAAACGTCAGATTTCATTACAATCGC 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTTTGGTGTGAAACGTCAGATTTCATTACAATCGC 1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT 1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CACTGCCGCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CACTGCCGCCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCCATCTGGTAC
                                                                                                                                                                                                             AACTGACTAATACACTCACA 50241
                                                                                                                                                                                                                                                                                       CTTAAACTTCTTTTCTTTAAAAATTACCCAGTCTCAGGTATTTCTTTATAGCAATGTGAG
                                                                                                                                                                                                                                                                                                                                                              AGTCCTCCCCA-AAGCAGAAGCCACTATGCTTCCTGCACAGCCTGCAGAACCATGAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
 ISOLATED HUMAN KINASE PROTEINS, NUCLEIC ACID MOLECULES ENCODING HUMAN KINASE PITHEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5.6%;
80.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A, T, C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 146.4; DB 4; Length Pred. No. 2.7e-30; O; Mismatches 46; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 148567;
                       PROTEINS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ۍ
۲۰
                       AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AND USES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     941
                                                                                                                                                                                                                                                                                                                                                                50321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
```

```
RESULT 12
US-09-022-461-1
                                                                                                                                        용
                                                                                                                                                                       á
                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-254-869-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/10/254,869
CURRENT FILING DATE: 2002-09-26
NUMBER OF SEQ ID NOS: 8
SOPTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 148567
TYPE: DNA
ORGANISM: Human
FEATURE:
NAME/KEY: misc_feature
LOCATION: (1)...(148567)
OTHER INFORMATION: n = A,T,C or G
                                                                                                                                                                                                                                                                                                                                                                                                                          Matches 209;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILE REFERENCE: CL001160DIV
                                                                                                                                                                                                                                                                                                                                                        50499
                                                                                                                                                                                                              50379
                                                                                                                                                                                                                                                143
                                                                                                                                                                           203
                                                                                                       263
                                                                                                                                                                                                                                                                                                                    84
                                                                                                                                                                                                                                                                                                                                                                                       27
                                                                                                                                                                                                                                                                                                              CTCACCATGTGAGACGCCTCGCTCCCC-CTTTGCCTTTCACCAGGATTGGAAAGCTTCCTG 142
                                                                                                                                        CTTAAACTTCTTTTTTAAAAATTACCCAGTCTCAGGTATTTCTTTATAGCAATGTGAG 50261
                                                                                                                                                              GTTAAACCCATTTCCTTCATAAATTTTCCCAGTCTCAGGTATTTTCTTTTTTAGCAATTTTGAG 262
                                                                                                                                                                                                                                         AGGCCTCCCCAGAAGCAGAAGCTGCTATGCTTCTTGTACAGTCTGTAGAGCTATTAGCCA 202
                                                                                                                                                                                                                                                                                                                                                                                       ATGAAATCTAGTTGTTTAAAAGCGTGTAGCACCTC---CTCCCTCTCTCTTACTCCTGCT 83
                                                                       AACTGACTAATACACTCACA 50241
                                                                                         AATGAACTAATACACAGACA 282
                                                                                                                                                                                                            AGTCCTCCCCA-AAGCAGAAGCCACTATGCTTCCTGCACAGCCTGCAGAACCATGAGCCA
                                                                                                                                                                                                                                                                                 CCCACCATGTGAGATGCCCTGCTCCCCTTTTTGCCTTCCACAATGATTGGAAGCTTCCTG 50380
                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                          5.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                        Score 146.4; DB 4
Pred. No. 2.7e-30;
0; Mismatches 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 148567;
                                                                                                                                                                                                                                                                                                                                                                                                                            5
```

50321

Sequence 1, Application US/09022461 Patent No. 5964371 CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/906
APPLICATION NUMBER: 08/906
FILING DATE: 04-AUG-1997
ATTORNEY/AGENT INFORMATION:
NAME: Catherine, Polizzi N GENERAL INFORMATION: COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/022,461 CORRESPONDENCE ADDRESS:
ADDRESSEE: MORRISON & FOERSTER
STREET: 755 PAGE MILL ROAD TITLE OF INVENTION: PROST APPLICANT: SCHUUR, APPLICANT: LAMPARSI APPLICANT: YU, De ( NUMBER OF SEQUENCES: APPLICANT: APPLICATION NUMBER: US/0 FILING DATE: 12-FBB-1998 COUNTRY: USA ZIP: 94304-1018 CITY: Palo Alto Ç, YU, De Chao HENDERSON, Daniel R. LAMPARSKI, Henry G. Eric PROSTATE CANCER DRUG 08/906,192

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-033-556-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-022-461-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 3, Applic Patent No. 6432700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEX: 706141
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                APPLICATION NUMBER: U
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: ITILE OF INVENTION: ITILE OF INVENTION: OUTBER OF SEQUENCES:
                                                                                                                                                                                                  ZIP: 94304-1018
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: Windows
            FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Catherine, Polizzi M
REGISTRATION NUMBER: 40,130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REGISTRATION NUMBER: 40,130
REFERENCE/DOCKET NUMBER: 34
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-813-5600
                                                                                                                                                                    SOFTWARE: FastSEQ for Windows Version 2.0b CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
ADDRESSEE: MORRISON & FOERSTER
                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Henderson, Daniel R. APPLICANT: Yu, De Chao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ma.
Local 189;
                                                                                                                                                                                                                                                                        COUNTRY:
ZIP: 943
                                                                                                                                                                                                                                                                                                                                       STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 12047 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX:
                                                                                                                                                                                                                                                                                                                      CITY: Palo Alto
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5380 CCATGTAAGATACCT-GCTCCTGCTTTGCCTTCTACCATAAGTAAAAGCCCCCCTGAGGCC 5438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5320 TGÁGATCTGGTCATTTAAAÁGTGTGTGGCCCCTCCCTCCCTCTTGGTCCTCCTACTG 5379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              268 ACTAATACA 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCCATTTCCTTCATAAATTTCCCAGTCTCAGGTATTTCTTTTTAGCAATTTGAGAATGA 267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACTAATACA 5566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCTCTTTTCTGTATAAA-TTACCAGTCTTGAGTATCTCTTTACAGCAGTGTGAGAACGG 5557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCCCAGAAGCAGAAGCTGCTATGCTTCTTGTACAGTCTGTAGAGCTATTAGCCAGTTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ccargraacaccccccccccrrraccrrraccagaarracaaaccrrccraagacc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCCCCAGAAGCAGATGCCACCATGCTTCCTGTACAGCCTGCAGAACCATCAGCCAATTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Application US/09033556
                                                                                                                                                                                                                                                                                                                                         755 PAGE MILL ROAD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         415-494-0792
                                                                                                                                                                                                                                                                                            USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5.0%;
75.9%;
                                                                                                                                                                                                                                                                                                                                                                                                        ADENOVIRUS VECTORS CONTAINING HETEROLOGOUS TRANSCRIPTION REGULATORY ELEMENTS AND METHODS OF USING SAME
                                                                                                                                                                                                                                                                                                                                                                                          41
                                                                                                                                                     US/09/033,556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ۲.
 34802-20010.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          34802-20003.21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 132.2; DB 2;
Pred. No. 6.2e-27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       58;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 12047;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       87
```

```
밁
                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ફ
                  ş
                                                                                                                  밁
                                                                                                                                                 გ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-474-699-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 14
                                                                                                                                                                                                                                                   US-09-474-699-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-033-556-3
                                                                                                                                                                                                                                                                SEQ ID NO 11
LENGTH: 12047
TYPE: DNA
ORGANISM: Homo Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 11, Application US/09474699 Patent No. 6495130 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches 189;
                                                                                                                                                                                 Matches 189;
                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                            APPLICANT: Henderson, Daniel R.
APPLICANT: Yu, De Chao
TITLE OF INVENTION: TARGET CELL-SPECIFIC ADENOVIRAL VECTORS
TITLE OF INVENTION: CONTAINING E3 AND METHODS OF USE THEREOF
FILE REFERENCE: 348022001300
CURRENT APPLICATION NUMBER: US/09/474,699
CURRENT FILING DATE: 1999-12-29
PRIOR APPLICATION NUMBER: 60/114,262
PRIOR PILING DATE: 1998-12-30
NUMBER OF SEQ ID NOS: 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEX: 706141
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                    SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
LENGTH: 12047 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION: 650-813-5600
                                                                                                                                                                                                  Local Similarity 75.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEPHONE: 650-813-56
TELEFAX: 650-494-0792
TELEX: 706141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS:
TOPOLOGY: 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5380 CCATGTAAGATACCT-GCTCCTGCTTTGCCTTCTACCATAAGTAAAAGCCCCCTGAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          148 TCCCCAGAAGCAGAAGCTGCTATGCTTCTTGTACAGTCTGTAGAGCTATTAGCCAGTTAA 207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         268 ACTAATACA 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         208 ACCCATTTCCTTCATAAATTTCCCCAGTCTCAGGTATTTCTTTTTAGCCAATTTGAGAATGA 267
                                                                                  88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                88 CCATGTGAGACGCCTCGCCTCTCCCCTTTGCCTTTCACCAGGATTGGAAGCTTCCTGAGGCC 147
TCCCCAGAAGCAGAAGCTGCTATGCTTCTTGTACAGTCTGTAGAGCTATTAGCCAGTTAA
                                                                                    CCATGTGAGACGCCTCGCTCCCCCTTTGCCTTTCACCAGGATTGGAAGCTTCCTGAGGCC 147
                                                                                                                                                                                                                                                                                                                                FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACTAATACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCTCTTTTCTGTATAAA-TTACCAGTCTTGAGTATCTCTTTACAGCAGTGTGAGAACGG 5557
                                                    CCATGTAAGATACCT-GCTCCTGCTTTGCCTTCTACCATAAGTAAAAGCCCCCCTGAGGCC 5438
                                                                                                                    TCCCCAGAAGCAGATGCCACCATGCTTCCTGTACAGCCTGCAGAACCATCAGCCAATTAA
                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5.0%;
75.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ω
::
                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
,
                                                                                                                                                                               Score 132.2; DB 4
Pred. No. 6.2e-27;
0; Mismatches 58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 132.2; DB
Pred. No. 6.2e-27
O; Mismatches 5
                                                                                                                                                                                                               DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 4;
                                                                                                                                                                                 58;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        58;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                    Indels
                                                                                                                                                                                                               Length 12047;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 12047;
                                                                                                                                                                                 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2
                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5438
                     207
                                                                                                                                                                                    2
```

```
Sequence 3, Application US/09151376

Patent No. 6676935

GENERAL INFORMATION:

APPLICANT: Henderson, D.R.

APPLICANT: Schuur, E.R.

TITLE OF INVENTION: TISSUE SPECIFIC VIRAL VECTORS

FILE REFERENCE: 348022000221

CURRENT APPLICATION NUMBER: US/09/151,376

CURRENT FILING DATE: 1998-09-10

EARLIER APPLICATION NUMBER: 08/669,753

EARLIER APPLICATION NUMBER: 08/495,034

EARLIER APPLICATION NUMBER: 08/495,03
Search completed: October 29, 2004, 16:11:07 Job time : 220 secs
                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ई
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 15
US-09-151-376-3
                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 5.0%; Score 132.2; DB 4; Length 12047; Best Local Similarity 75.9%; Pred. No. 6.2e-27; Matches 189; Conservative 0; Mismatches 58; Indels 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5380 CCATGTAAGATACCT-GCTCCTGCTTTGCCTTCTACCATAAGTAAAAGCCCCCCTGAGGCC 5438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5558 ACTAATACA 5566
                                                                                                                                                                 5558 ACTAATACA 5566
                                                                                                                                                                                                                                                                                                                                   5499 ACCTCTTTTCTGTATAAA-TTACCAGTCTTGAGTATCTCTTTTACAGCAGTGTGAGAACGG 5557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5439 TCCCCAGAAGCAGATGCCACCATGCTTCCTGTACAGCCTGCAGAACCATCAGCCAATTAA 5498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5439 TCCCCAGAAGCAGATGCCACCATGCTTCCTGTACAGCCTGCAGAACCATCAGCCAATTAA 5498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             268 ACTAATACA 276
                                                                                                                                                                                                                                                                                                                                                                                      208 ACCCATTTCCTTCATAAATTTCCCCAGTCTCAGGTATTTCTTTTTTAGCAATTTTGAGAATGA 267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                148 TCCCCAGAAGCAGAAGCTGCTATGCTTCTTGTACAGTCTGTAGAGCTATTAGCCAGTTAA 207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        268 ACTAATACA 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      88 CCATGTGAGACGCCCCCCCCTTTGCCCTCACCAGGATTGGAAGCTTCCTGAGGCC 147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2;
```

This Page Blank (uspto)

```
Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OM nucleic - nucleic search, using sw model
Published Applications NA:*

1: /cgm2_6/ptodata/2/pubpna/US07 PUBCOMB.seq:*

2: /cgm2_6/ptodata/2/pubpna/US06 NEW PUB.seq:*

3: /cgm2_6/ptodata/2/pubpna/US06 NEW PUB.seq:*

4: /cgm2_6/ptodata/2/pubpna/US06_PUBCOMB.seq:*

4: /cgm2_6/ptodata/2/pubpna/US06_PUBCOMB.seq:*

6: /cgm2_6/ptodata/2/pubpna/US08_NEW PUB.seq:*

7: /cgm2_6/ptodata/2/pubpna/US08_PUBCOMB.seq:*

8: /cgm2_6/ptodata/2/pubpna/US08_PUBCOMB.seq:*

9: /cgm2_6/ptodata/2/pubpna/US09A_PUBCOMB.seq:*

10: /cgm2_6/ptodata/2/pubpna/US09A_PUBCOMB.seq:*

11: /cgm2_6/ptodata/2/pubpna/US09C_PUBCOMB.seq:*

12: /cgm2_6/ptodata/2/pubpna/US09C_PUBCOMB.seq:*

13: /cgm2_6/ptodata/2/pubpna/US10A_PUBCOMB.seq:*

14: /cgm2_6/ptodata/2/pubpna/US10B_PUBCOMB.seq:*

15: /cgm2_6/ptodata/2/pubpna/US10B_PUBCOMB.seq:*

16: /cgm2_6/ptodata/2/pubpna/US10B_PUBCOMB.seq:*

17: /cgm2_6/ptodata/2/pubpna/US10B_PUBCOMB.seq:*

18: /cgm2_6/ptodata/2/pubpna/US10B_PUBCOMB.seq:*

19: /cgm2_6/ptodata/2/pubpna/US10B_PUB.seq:*

20: /cgm2_6/ptodata/2/pubpna/US10B_PUB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3413475 seqs, 2563800928 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-867-570-1
2618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            October 29, 2004, 13:55:34 ; Search time 1218 Seconds (without alignments) 11021.397 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6826950
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

1 3 3 5 5 4 4 7 7 1 1 1 1 1 1 1 1 1 1 1	Result No.
2618 1529.6 1483.8 1192.6 1104 1094.2 1094.2 1095.3 1040.6 1013.6	Score
100.0 58.4 56.7 45.6 42.2 41.8 41.8 40.2 39.7 39.7 39.7 39.7	Query
2618 1997 2040 1369 8622 1400 1370 1369 1369 1604	Query Match Length DB
11 14 14 15 15 15 15 15 15	BB
US-09-867-570-1 US-10-219-834-7 US-10-183-116-15 US-10-92-798-1273 US-09-867-570-3 US-10-183-116-30 US-10-225-567A-673 US-10-017-161-1599 US-10-017-161-1055 US-10-183-116-32 US-10-225-567A-688	ID
Sequence 1, Appli Sequence 7, Appli Sequence 15, Appli Sequence 1273, Ap Sequence 30, Appli Sequence 30, Appli Sequence 673, Appl Sequence 1055, Ap Sequence 197, Appl Sequence 897, Appl Sequence 897, Appl Sequence 688, Appl	Description

45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13 1
•	•	•	608.8	•		•	•	713.8	•	755.4	769.6	٠	792.2	822.6	•	•	•		٠	829.8	829.8	829.8	833	833	833	845.8	•	964.2	965.8	969	969	1012.2
23.3				23.3				27.3			29.4		30.3		31.4	31.7	31.7		:	:	31.7	:	:	:		32.3		•	•	•	•	38.7
1393	1393	1300	1300	1163	961	1030	955	1394	955	769	966	994	966	1005	964	969	969	969		969	969	969	969	969	969	909	997	969	969	969	969	1369
15	2	15	14	9	15	16	15	15	15	15	15	16	15	16	16	17	17	16	15	15	15	15	15	5		15	16	16	15	10		15
-292	US-10-017-161-1053	US-10-225-567A-648	US-10-183-116-17	750-:	US-10-240-998-7	0-072	US-10-017-161-1311	0-292-798-	0-292-	US-10-101-510-239	US-10-240-998-6		US-10-240-998-9		US-10-072-012-173	US-10-314-048A-19	US-10-321-807-19	US-10-343-650A-43	-10-	-10	US-10-240-998-3	US-10-079-384-3	US-10-237-467-3	US-09-995-225-17	US-09-995-225-17	-10-237	US-10-072-012-171	US-10-391-074-1	US-10-401-397A-1	US-09-995-225-19	US-09-995-225-19	US-10-292-798-1041
895, 7	1053,	648,	e 17	11,	7,	175	1311,	1269,	e 1077,	239	Sequence 6, Appli	169	Sequence 9, Appli	e 177,	173,	19, 7	19,	43,	11,	19,	Sequence 3, Appli	Sequence 3, Appli	ω	e 17,	17	,	_	Sequence 1, Appli	Sequence 1, Appli	e 19	Sequence 19, Appl	

## ALIGNMENTS

Ş	B 성	B &	Query Best Match	RESULT 1 US-09-867 Sequence Publica GENERAL APPLICA TITLE TENCO TORRE SOFTWAL SEQ ID TENCO TENCO TENCO TENCO TORRE SOFTWAL SOFTWAL SOFTWAL
121 CACCAGGATTGGAAGCTTCCTGAGGCCTCCCCAGAAGCAGAAGCTGCTATGCTTCTTGTA 180	61 CCTCCCTCTCTTACTCCTGCTCTCACCATGTGAGACGCCTCGCTCCCCCCTTTGCCTTT 120	1 AACAATTGCCGCGAATTCGGCACGAGATGAAATCTAGTTGTTTAAAAGCGTGTAGCACCT 60 	Query Match 100.0%; Score 2618; DB 11; Length 2618; Best Local Similarity 100.0%; Pred. No. 0; Mismatches 0; Indels 0; Gaps	US-09-867-570-1  US-09-867-570-1  Sequence 1, Application US/09867570  Publication No. US20040076951A1  GENERAL INFORMATION:  APPLICANT: WEI, Ming-Hui et al.  APPLICANT: WEI, MING-HUI et al.  TITLE OF INVENTION: ISOLATED HUMAN G-PROTEIN COUPLED  TITLE OF INVENTION: RECEPTORS, NUCLEIC ACID MOLECULES ENCODING HUMAN GPCR  TITLE OF INVENTION: PROTEINS, AND USES THEREOF  FILE REFERENCE: CL000900-CIP  CURRENT APPLICATION NUMBER: US/09/867,570  CURRENT PILING DATE: 2001-05-31  PRIOR APPLICATION NUMBER: 09/695,045  PRIOR FILING DATE: 2000-10-25  NUMBER OF SEQ ID NOS: 4  SOFTWARE: FastSEQ for Windows Version 4.0  SEQ ID NO 1  LENGTH: 2618  TYPE: DNA  ORGANISM: Human  US-09-867-570-1
0	0 0	_	0;	

901 ACCTGTCATCGGTCATGTGTGTCCTCTGGGCCCTGTCCCTGCTGGGAGTATCCTGG 960	601 TTTCCCTTGTCGCCTGACAGGAAACGGGTTGGCTCTGGCTCCTGGGCTCGCGCTGCTCCTTACATCTCACATCTCACCTGGCTGCTGGCTG	361 TCCACCAGAAACCAGAAATAAAAAGAATCCCACTGATGTGGTACATAGAAGCCACTCTCT 420	
8 6 8 6 8 6 8 6 8 6 8 6	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	5 8 8 8 8 8 8
1981 GAGAGATTCTCCCTTCATAAAAACACTCTTAAAATTGGTTTTATGAATAGCCCTCCC 2040	ACTION OF A TABLE OF A TABLE OF A CONTROL OF	GARGCAGATTGGAAGGATTATCTTGCAATGTTTTCTGAACACTTTTTCTGCACTTTTTCTCGCACTTTTTTCTTACCAATTATTTTCTTACCAATTTTTCTTACCAATTTTTCTTACCAATTTTTCTTACCAATTTTTCTTACCAATTTTTCTTACCAATTTTTCTTACCAATTTTTCTTACCAATTTTTCTTACCAATTTTTCTTACCAATTTTTCTTACCAATTTTTT	1201 CCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGTGATCTAGTTT 1260  1261 CCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCT 1320  1261 CCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCT 1320  1321 CCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGG 1380  1321 CCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCCAGAGGGCTCTGCAGG 1380  1321 CCTTTAGGCAGAAAATAGGCAGAAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGG 1380  1381 ACACGCCTGAAGGTGGAATAAAGGTGGAAACCTTCCCAGAGGGCTCTGCAGG 1380  1381 ACACGCCTGAGGTGGATGAAGGTGGAAGCTGGCTTCCTCAGAAACCCTGGAGCTGTCGG 1440  1381 ACACGCCTGAGGTGGATGAAGGTGGAGGGAGGGAACCTTGCAGGAAACCCTGGAGCTGTCGG 1440  1381 ACACGCCTGAGGTGGATGAAGGTAGGAAGGAACCTTGCAGGAAACCCTGGAGCTAGCAA 1500

TCGCGGGCCGACTTCCTTCCTTAGCGGCGCACATTATATATA	PRIOR PRIOR SOFTWA SOFT	CURRENT FILING DATE: 2002-08-15 PRIOR APPLICATION NUMBER: US 60/313,658 PRIOR PILING DATE: 2001-08-20 PRIOR APPLICATION NUMBER: US 60/340,703 PRIOR APPLICATION NUMBER: US 60/340,703 PRIOR APPLICATION NUMBER: US 60/318,675 PRIOR PILING DATE: 2001-09-12 PRIOR APPLICATION NUMBER: US 60/355,596 PRIOR PRIOR FILING DATE: 2002-02-06 PRIOR PILING DATE: 2002-01-11-26 PRIOR APPLICATION NUMBER: US 60/333,417 PRIOR APPLICATION NUMBER: US 60/333,417 PRIOR APPLICATION NUMBER: US 60/338,367	ESULT 2 S-10-219-8 Sequence Publicati GENERAL 1 APPLICAL TITLE 01 FILE REI	Db 2461 GACATACATGAACCTGGAAATATTGTGCTAAGGAAATAAGCCAGACGCAAACAATATT 2520  Qy 2521 GTAAGTTCAAATTCTATGAGGTATCCAAATTAGGAAATTAGGCCAGACGCCAAACAATATT 2580	TAGTTTTATGGCTGTTTACATGAGAAGCAAAACTGAAAACATCTGACCATTCCATGACAA
	B & B & B &	84 A A A A A A A	B & B & 8	,	D
1518 TGACAATTATATGCATTITTCTTAGCCTTCAGAAATGTCTCAGTGGTCCCTCAA 1577	1338 AATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGAT 1397	1164 TTCCTCCTCTGTGGCCTGCCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTG 1223	GITTITITATIGATIGATIGATIGATIGATIGATIGATITATICA GALLAGIAGATICA CAGAGATICA CAGAG	864 CTGTGGCCCATCTGGTACCACTGCCGCCCCAGATACCTGTCATCGGTCATGTGTCTC 923	

Query Match 56.7%; Score 1483.8; DB 14; Length 2040; Best Local Similarity 91.4%; Pred. No. 0; Matches 1596; Conservative 0; Mismatches 147; Indels 4; Gaps 2;	; FEATURE: ; NAME/KEY: CDS ; LOCATION: (328)(1293) US-10-183-116-15	ς: π	PRIC PRIC NUME SOFT				APPLICANT: Dong, Xinzhong APPLICANT: Zylka, Mark APPLICANT: Simon, Melvin APPLICANT: Han Sang-kron	US-10-183-116-15 ; Sequence 15, Application US/10183116 ; Publication No. US20030092035A1 ; GENERAL INFORMATION: APPLICANT. AARDGERON. David J.	SULT 3	1933 ATCTTGAAAACCATTTATTATTCACTTACAGA 2269	Qy 2178 TGTCCCACCAGTTTCATTTTGGCCATTGGAAACCTCAATATTGATTTTAAAGTGGAAATT 2237	Qy 2118 ACTGGTAAGTTCTTATTTAGCTCTTCCTGGACTAATGAACTAGTGAGGAGCCTATAAATA 2177 Db 1813 ACTGGTAAGTTCTTATTTAGCTCTTCCTGGACTAATGAACTAGTGAGGAGCCTATAAATA 1872	Qy 2058 CATGGTGACATGTTGGCCTTGGTTTCTAGTAAAGACAATGGTGGCCCCTTCCCCTTGAGA 2117 Db 1753 CATGGTGACATGTTGGCCTTGGTTTCTAGTAAAGACAATGGTGGCCCCTTCCCCTTGAGA 1812	OY 1998 CATAAAAACAGTCTTAGAAATTGGTTTTATGAATAGCCCTCTCCTGTCATTTGTCCACAG 2057	OY 1938 AATTCCATTGAATTCTCAGATATAAAGCAAAATAATGACCTTAGAGAGAG	Qy 1878 ACTGGAGGCATTACTGCAGTTGGAAGCTCAATTCTTAATAAGTGAGTTCTGCTACCTCTA 1937	Qy 1818 GGAAGATTCCTTATTAATCIGTCAGACTATGTTCCCCTGAAAATCATGTTCCCCTTTTATG 1877	Db 1453 TGCTGTCCACAACCCTAAAACTCTTCTTTATACTTGTTTCCTACCTGATAGTATCAAAAA 1512
D Q	₽ \$	) B (	B &	) B Q	D Q	Db Qy	QQ QQ	Qy	B 8	Qy dd	g Q	D Q	Q dd	₽ <b>5</b>	B 5	S B :	S B :	8
1482 GACAGGACTTTGAGAGCAATGCTGCCCCTTGGCAATTATATGCATTTTTCTTA 1541	GAAATCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAGCCTCTGCCCTGTCA		ATTIACTICTICGIGGGCICCTITAGGCAGGCICAAAATAGGCAGAACCIGAAGCIGGTIAAGCIGGTITAGCTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTAGTTA	TGTCATGTGCATCTAGTTTCCATTTTCCTGTCGGTCTTTAGCAGCAGTGCCAACCCCATC	CCTTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACTGGATTGGAAAGTCTTATT 12	ω—ω	1062 CTCTGTGGGTCCAGCCTGGTCCTGCTGGTCÁGGATTCTCTGTGGATCCCGGAAGATGCCG 1121	1002 GTTTGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGGTT 1061 	942 CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT 1001	882 CACTGCCGCCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCC 941	822 AGCATICAGGGCCATCAGGACCGAGCGCTGCCCGTCCCATCCGGTGGCCCATCTGGTAC 881	GCCATCCCATCTCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA	GCCGACTTCCTTTCCTTAGCGGCCACATTATATGTTCGCCGTTAAGCCTCATCAATATC	CTCCTGGGCTGCCGCATGCGCAGAACGCCTTCTCCATCTACATCTCAACTTGGCCGCA 5	2 ACGOSCIONOSIGNATICOS INCOCIONAMA COCONINCIPO CONTROLO C	58 GAACTGACCTTCATCCATTCATCCTTTCTTCCTTTTCCTTACCAACCATTTTTCTTC	98 TCCAGGGTCACCAGACTAGGGTTTCTGAGCATGCATCCAACCATCTCAACCTTGGACACACAC	462 TCATGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA 521

```
Sequence 1773, Application US/10292798

Publication No. US20030235833A1

GENERAL INFORMATION:
APPLICANT: SUMA, MAKIKO
APPLICANT: SUMA, MAKIKO
APPLICANT: ASSAI, KIYOSHI
APPLICANT: AFRATAMI, HIROYUKI
TITLE OF INVENTION: GUANOSINE TRIPHOSPHATE-BINDING PROTEIN COUPLED RECEPTORS
FILE REFERENCE: 084335/166
CURRENT APPLICATION NUMBER: US/10/292,798
CURRENT FILING DATE: 2002-11-13
PRIOR FILING DATE: 2001-12-18
PRIOR APPLICATION NUMBER: 10/017,161
PRIOR APPLICATION NUMBER: JD 2001-246789
PRIOR FILING DATE: 2001-06-18
NUMBER OF SEQ ID NOS: 2070
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 1273
LENGTH: 1369
                                                                                                                                                                                                                                                                                                                                     RESULT 4
US-10-292-798-1273
TYPE: DNA ORGANISM: Homo sapiens FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGCAAAATAATGACCTTAGAGAGAGATTCTCCCCTTCATAAAAAACAGTCTTAGAAATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCTCCTTGATATTACCAACACATTTTCCCTGTTATCTCACACTGAATCTTTCCTACAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTGGAA 2208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCTGGACTAATGAACTAGTGAGGAGCCTATAAATATGTCCCACCAGTTTCATTTTTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCTAGTAAAGACAATCGTGGCCCCTTCCCCTTGAGAACTGGTAAGTTCTTATTTAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTTTATAAAAAGTCTTCCCCTGTCATTTGTTCACAGCATGGTGATATGTTGGCCTTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTTTATGAATAGCCCTCTCCTGTCATTTGTCCACAGCATGGTGACATGTTGGCCTTTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGCAAAATAATGTCCTTAGAGACAGACTCTCTCTTCATAAAAACACTCTCACCTATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCTCGATTCTTAATAAGTGAGTTCTGCTATCTCTACATTCCATTGAATTCTCAGATACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCTCAATTCTTAATAAGTGAGTTCTGCTACCTCTAAATTCCATTGAATTCTCAGATATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACTATGTTCCCCTGAAAATCATGTTCCCTTCTATGACTGGAGGCATTACTGCAGTTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACTATGTTCCCCTGAAAATCATGTTCCCTTTTATGACTGGAGGCATTACTGCAGTTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCTTTATACTTGTTTCCTACCTGATAGTATCAAAAAGGAAGATTCCTTATTAATCTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CACTITITCTGCAATTTTCTTTGTAATAAAGGAGTTCCTGTACAAAACCCTAAAAACAC-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CACTITTTCTGCACTITTCATTGTAATAAAAGGAGTTGCTGTCCACAACCCTAAAACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCTCCTTGATATTACCAATACATTTTCCCTGTTATCTTGCACTGAATCTTTCCTACTGAA
                                                                                                                                                                                                                                                                                                                                                                                                   2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; LOCATION: Source
; FRATURE:
; LOCATION: (1)..(1369)
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (201)..(1169)
US-10-292-798-1273
                           밁
                                                      S
                                                                                         밁
                                                                                                                  Ś
                                                                                                                                                  В
                                                                                                                                                                               Ş
                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                      뮍
                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 1195; Conser
                                                           1302
                                                                                                                                                                                 1182
                                                                                                                                                                                                                                                                                                        1062
                                                                                                                                                                                                                                                                                                                                                                   1002
                                                                                                                                                                                                                                             1122
                                                                                          951
                                                                                                                                                     891
                                                                                                                                                                                                               831
                                                                                                                                                                                                                                                                           771
                                                                                                                                                                                                                                                                                                                                      711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 171
                                                                                                                                                                                                                                                                                                                                                                                                   651
                                                                                                                                                                                                                                                                                                                                                                                                                                942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                462 TCATGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               702
                                                                                                                                                                                                                                                                                                                                                      GTTTGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCAGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA
                                                                                                                                                                    CCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCCGACTTCCTCTTCCTTAGCGGCCACATTATATGTTCGCCCGTTACGCCTCATCAATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC
 CTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAG
                                                 ATTTACTTCCTTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT 1361
                                                                                                          TGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC
                                                                                                                                                                                                                  CTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTG
                                                                                                                                                                                                                                CTCTGTGGGTCCAGCCTGGTCCTGCTGGTCAGGATCTCTGTGGATCCCGGAAGATGCCG
                                                                                                                                                                                                                                                                                               CTCTGTGGGTCCAGCCTGGTCCTGCTCAGGATTCTCTGTGGATCCCGGAAGATGCCG
                                                                                                                                                                                                                                                                                                                                      CTGCTGCGGAGTATCCTGGAGTGGATTCTGTGACTTCCTGTTTAGTGGTGCTAATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                 CTGCTGCGGAGTATCCTGGAGTGGATTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT 1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                CACTGCCGCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCGACTTCCTTACCGCCCACATTATATGTTCGCCGTTACGCCTCATCAATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGG
                                                                                                                                                     CCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGCCATCCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
                                                                                         TGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCCATCTGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           45.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 1192.6;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1369;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
   1421
                                                                                                                                                                                                                                                                                                                                                                                                     710
                                 1070
                                                                                            1010
                                                                                                                         1301
                                                                                                                                                                                    1241
                                                                                                                                                                                                                                               1181
                                                                                                                                                                                                                                                                                                          1121
                                                                                                                                                                                                                                                                                                                                                                      1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   230
                                                                                                                                                       950
                                                                                                                                                                                                                  890
                                                                                                                                                                                                                                                                           830
                                                                                                                                                                                                                                                                                                                                        770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     581
```

S

S 밁 Ş

밁

S 밁 S 밁 S 뭐 S 밁 8

В

밁 δ 밁 S

유 &

밁

```
Sequence 3, Application US/09867570

Publication No. US20040076951A1

GENERAL INFORMATION:
APPLICANT: WEI, Ming-Hui et al.
TITLE OF INVENTION: ISOLATED HUMAN G-PROTEIN COUPLED
TITLE OF INVENTION: RECEPTORS, NUCLECT ACID MOLECULES ENCODING HUMA
TITLE OF INVENTION: PROTEINS, AND USES THEREOF
FILE REFERENCE: CL000900-CIP
CURRENT APPLICATION NUMBER: US/09/867,570
CURRENT APPLICATION NUMBER: US/09/867,570
CURRENT FILING DATE: 2001-05-31
PRIOR APPLICATION NUMBER: 09/695,045
PRIOR FILING DATE: 2000-10-25
NUMBER OF SEQ ID NOS: 4
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 3
LENGTH: 8622
TYPE: DNA
ORGANISM: Human
US-09-867-570-3
                                                                             밁
                                                                                                        S
                                                                                                                                                 밁
                                                                                                                                                                                S
                                                                                                                                                                                                                         망
                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                              멍
                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 5
US-09-867-570-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
mes 1107; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1542
                                                                                                                                                                                                                         7678
                                                                                                                                                                                                                                                                                                 7618
                                                                                                                                                                                                                                                             642
   AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC
                                                                                                CGCCATCCCATCTCCAAAATCCCTCAGTCCTGTGATGACCTTTCCCCTACTTTATAGGCCTA
                                                                                                                                                                        GCCGACTTCCTCTTCCTTAGCGGCCACATTATATGTTCGCCCGTTACGCCTCATCAATATC
                                                                                                                                                                                                                                            CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
                                                                                                                                                                                                                                                                                                                      ACGGGGCTGACGTGCATCGTTTCCCCTTGTCGCGCTCGACAGGAAACGCGGTTGTGCTCTGG
                                                                                                                                                                                                                                                                                                                                                                         GAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                              GAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                               TCCAGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCATGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGA 1369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGA 1660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCTTCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTTATCTA 1601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GACAGGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTTCTTA 1541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA 1481
                                                                                                                                                   GCCGACTTCCTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATC
                                                                                                                                                                                                                           CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
                                                                                                                                                                                                                                                                                                 ACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    42.2%; ilarity 99.6%; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 1104; DB 11;
Pred. No. 1.9e-300;
0; Mismatches 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8622;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1190
                                                                                                                                                                                                                                                                                                                                                                                                                                               7557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1130
                                       881
                                                                                                               821
                                                                                                                                                   7797
                                                                                                                                                                                       761
                                                                                                                                                                                                                         7737
                                                                                                                                                                                                                                                             701
                                                                                                                                                                                                                                                                                                 7677
                                                                                                                                                                                                                                                                                                                                     641
                                                                                                                                                                                                                                                                                                                                                                      7617
                                                                                                                                                                                                                                                                                                                                                                                                           581
                                                                                                                                                                                                                                                          ; Sequence 30, Application US/10183116
; Publication No. US2003092035A1
; GENERAL INFORMATION:
; APPLICANT: Anderson, David J.
; APPLICANT: Dong, Xinzhong
; APPLICANT: Dong, Xinzhong
; APPLICANT: Simon, Melvin
                                                                                                                                                                                                                                                                                                                                                                                       RESULT 6
US-10-183-116-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
FILE REFERENCE: CALTE.4C1CP1
CURRENT APPLICATION NUMBER: US/10/183,116
CURRENT FILING DATE: 2002-06-26
PRIOR APPLICATION NUMBER: US 60/222,344
PRIOR FILING DATE: 2000-08-01
PRIOR APPLICATION NUMBER: US 60/202,027
PRIOR PILING DATE: 2000-05-04
PRIOR PILING DATE: 2000-05-04
PRIOR APPLICATION NUMBER: US 09/704,707
PRIOR APPLICATION NUMBER: US 60/285,493
PRIOR APPLICATION NUMBER: US 09/849,869
PRIOR APPLICATION NUMBER: US 09/849,869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                         APPLICANT: Han, Sang-kyou
TITLE OF INVENTION: PAIN SIGNALING MOLECULES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7918 CACTGCCGCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA 1481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTTTTGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GACAGGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTTACTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGACCAGGCTGTACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCTTCTGCCTCAGAAATGTCTCAGGGTCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCCTTCTGCCTCAGAAATGTCTCAGTGGTCCC 1573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACAGGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TETCATETECATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCTGTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7977
```

```
; PRIOR FILING DATE: 2001-05-04
; NUMBER OF SEQ ID NOS: 109
; SOFTWARE: FastSEQ for Windows Ve
; SEQ ID NO 30
; LENGTH: 1400
; TYPE: DNA
; ORGANISM: Homo sapiens
; PEATURE:
; NAME/KEY: CDS
; LOCATION: (332)...(1297)
US-10-183-116-30
                 문
                                         S
                                                                    밁
                                                                                    ક
                                                                                                           В
                                                                                                                                    S
                                                                                                                                                                  밁
                                                                                                                                                                                   S
                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            श्च
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 41.8%;
Best Local Similarity 99.7%;
Matches 1096; Conservative
1302
                       1082
                                              1242
                                                                                            1182
                                                                                                                                           1122
                                                                                                                                                                                                                                         1002
                                                                                                                                                                                         1062
                                                                                                                                                                                                                  842
                                                                                                                   962
                                                                                                                                                                   902
                                                                                                                                                                                                                                                                782
                                                                                                                                                                                                                                                                                       942
                                                                                                                                                                                                                                                                                                              722
                                                                                                                                                                                                                                                                                                                                     882
                                                                                                                                                                                                                                                                                                                                                              662
                                                                                                                                                                                                                                                                                                                                                                                    822
                                                                                                                                                                                                                                                                                                                                                                                                            602
                                                                                                                                                                                                                                                                                                                                                                                                                                                           542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     762
                                                                                                                                                                                                                                                                                                                           CACTGCCGCCCCCAGATACCTGTCATCGGTCATGTGTGTCCTCTGCGCCCCTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC
ATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT 1361
                                                                                                                                  CTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTG
                                                                                                                                                                                                                 GTTTGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTT
                                                                                                                                                                                                                                                                             CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                          CGCCATCCCAAAATCCTCAGTCCTGTGATGACCTTTCCCCTACTTTATAGGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCGACTTCCTCTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACGGGGCTGACGTGCATCGTTTCCCCTTGTCGCGCTGACAGGAAACGCGGGTTGTGCTCTGG
                                                                                   CCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT
                                                                                                                     CTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTG
                                                                                                                                                                   CTCTGTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCG
                                                                                                                                                                                   CTCTGTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCCGGAAGATGCCG
                                                                                                                                                                                                                                                               CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT
                                                                                                                                                                                                                                                                                                              CACTGCCGCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCC
                                                                                                                                                                                                                                                                                                                                                                          AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                            CGCCATCCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCGACTTCCTTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
                       TGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC
                                  TGTCATGTGCATCTAGTTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC
                                                                     CCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT
                                                                                                                                                                                                                                                                                                                                                              AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 1094.2; DB 14; Length 1400; Pred. No. 3.4e-298;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                      1141
                                              1301
                                                                       1081
                                                                                             1241
                                                                                                                   1021
                                                                                                                                           1181
                                                                                                                                                                                          1121
                                                                                                                                                                                                                                         1061
                                                                                                                                                                                                                                                                                       1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             521
                                                                                                                                                                   961
                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                                                                                      941
                                                                                                                                                                                                                                                                                                                                                                                    881
                                                                                                                                                                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                                                                                                                                                                                    821
                                                                                                                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               581
                                                                                                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                                                                                                                              721
         S
                                 밁
                                                      S
                                                                                 밁
                                                                                                  S
                                                                                                                               밁
                                                                                                                                                    Ś
                                                                                                                                                                              밁
                                                                                                                                                                                               $
                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
```

```
APPLICANT: LIFESPAN BLOSCIENCES
APPLICANT: Brown, JOSEPh P.
APPLICANT: Brown, JOSEPh P.
APPLICANT: Brown, JOSEPh P.
APPLICANT: Brown, JOSEPh P.
APPLICANT: Burmer, Glenna C.
APPLICANT: ROUGH, Christine L.
TITLE OF INVENTION: ANTIGENIC PEPTIDES AND ANTIFICE AND ANTIFICE OF INVENTION: ANTIGENIC PEPTIDES AND ANTIFICE OF INVENTION: ANTIGENIC PEPTIDES AND ANTIFICE OF INVENTION NUMBER: 60/257,144
PRIOR APPLICATION NUMBER: 60/257,144
PRIOR APPLICATION NUMBER: 60/257,144
PRIOR APPLICATION NUMBER: 60/257,144
PRIOR FILING DATE: 2000-12-19
NUMBER OF SEQ ID NOS: 2292
SOFTWARE: PATENTIN VETSION 3.1
SEQ ID NO 673
LENGTH: 1400
TYPE: DNA
ORGANISM: Homo Sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 7
US-10-225-567A-673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10-225-567A-673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 673, Application US/10225567A Publication No. US20030113798A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 41.8
Best Local Similarity 99.7
Matches 1096; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1142 ATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT
                                                                                     542
                                                                                                                                                                                                                                                                                                                                                           362
                                                                                                                                                                                                                                                                                                                                                                                                       522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       462 TCATGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA
                                         762
                                                                                                                                                                             482
                                                                                                                                                                                                                       642
                                                                                                                                                                                                                                                                     422
                                                                                                                                                                                                                                                                                                               582
                                                                                                                                                                                                                                                                                                                                                                                                                                                302 TCCAGGGTCACCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA
                                                                                                                                 702
                                                                                                                                                                                                                                                                                                                                                    GAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCTTCTGCCTCAGAAATG 1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACAGGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTTCTTA 1541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA 1481
                                                                                                                                                                                                                                                                                                               ACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCCAGAGGGCTCTGCAGGACACGCCTGAGGTTGGATGAAGGTTGGAGGGTTGCCTCCAG
                         CGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCCTACTTTATAGGCCTA
                                                                                       GCCGACTTCCTCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATC
                                                                                                                      GCCGACTTCCTCTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATC
                                                                                                                                                                             CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
                                                                                                                                                                                                    CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
                                                                                                                                                                                                                                                                     CTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAG
CGCCATCCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GACAGGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    41.8%; Score 1094.2; DB 1
99.7%; Pred. No. 3.4e-298;
tive 0; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AND ANTIBODIES FOR G PROTEIN-COUPLED RECEPTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 15; Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1400;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1421
                                              821
                                                                                          601
                                                                                                                                 761
                                                                                                                                                                             541
                                                                                                                                                                                                                         701
                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                 641
                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                       581
                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
```

AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC

.881

```
US-10-017-161-1599

Sequence 1599, Application US/10017161

Publication No. US20030143668A1

GENERAL INFORMATION:
APPLICANT: SUWA, MAXIKO
APPLICANT: ASAI, KIYOSHI
APPLICANT: ASAI, KIYOSHI
APPLICANT: ARIYAMA, YUTAKA
TITLE OF INVENTION: NOVEL PROTEIN-COUPLED RECEPTORS
FILE REFERENCE: 084335/0152

CURRENT APPLICATION NUMBER: US/10/017,161

CURRENT FILING DATE: 2001-12-18

PRIOR APPLICATION NUMBER: JP 2001/246789

PRIOR PILING DATE: 2001-06-18

NUMBER OF SEQ ID NOS: 2430

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 1599

LENGTH: 1370
TYPE: DNA ORGANISM: Homo sapiens FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1022
                                                                                                                                                                                                                                                                                                                                                                                                          1382
                                                                                                                                                                                                                                                                                                                                                                                                                                           1542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        662
                                                                                                                                                                                                                                                                                                                                                                                                          GCCTTCTGCCTCAGAAATG 1400
                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCTTCTGCCTCAGAAATG 1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GACAGGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACAGGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTA 1541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA 1481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTTACTTCCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGTCATGTGCATCTAGTTTCCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCTGTGGGTCCAGCCTGGTCCTGCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTTTGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CACTGCCGCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CACTGCCGCCGCCCCAGATACCTGTCATCGGTCATGTGTGTCCCTGCTCTGGGCCCTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCTGTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTTTGGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                          5
                                                                  묽
                                                                                            S
                                                                                                                                  片
                                                                                                                                                                Ś
                                                                                                                                                                                                     片
                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                      뭉
                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                          片
                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-017-161-1599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 40.2%;
Best Local Similarity 94.4%;
Matches 1136; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: LOCATION: FEATURE: NAME/KEY: LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
NAME/KEY: CDS
LOCATION: (996)..(1170)
                                                                                                                                                                                                                                      1119
                                                                                                   1238
                                                                                                                                                                     1178
                                                                                                                                                                                                                                                                                                        1062
                                                                                                                                                                                                                                                                                                                                                                           1002
                                  1298
                                                                    948
                                                                                                                                      890
                                                                                                                                                                                                      830
                                                                                                                                                                                                                                                                       770
                                                                                                                                                                                                                                                                                                                                                                                                          650
                                                                                                                                                                                                                                                                                                                                                                                                                                         942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                710 GCTGGGTGTAAGACAGCAGACATTACAACAGCGTGGCTGGTTTTTATGAGGGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  231 GAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC
CATCATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCT 1357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CDS
(201)..(619)
                                                                                                                                                       CCTGCCCTTTGGCATTCAGTGGGCCCTGTTTTTCCAGGATCCACCTGGATTGGAAAGTCTT
                                                                                                                                                                                                                          CCGCTGACCAGGCT-GTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGG
                                                                                                                                                                                                                                                                                         CT---CTGTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATG
                                                                                                                                                                                                                                                                                                                                                           CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCGACTTCCTCTTCCTTAGCGGCCACATTATATGTTCGCCGCTTACGCCTCATCAATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
(1)..(1370)
                                                                                     ATTTTGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCC
                                                                                                                                                                                                                                                                       CTGCGCGGGGGGTGCAGCGTCGTCCTGCTCATGAGGATGCGCGGATGATCGCGGAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                            CTGCTGCGGAGGATCATGGAGTGGATGATCTGTGACTACCTGTTGAGTGGTGCTGCTAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCGACTTCCTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACGGGGCTGACGTGCCTTTCCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGG
                                                                                                                                    CCTGCC--TTTGGATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGAGTGGAAAGTCTT
                                                                                                                                                                                                        CCGCTGAGGATGTTCGAGCGTGATCATCCTCCTCATGGTGGTGGTCCTCCTCCGCGGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 1053; DB 15;
Pred. No. 1.5e-286;
0; Mismatches 60;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1370;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                     1297
                                                                                                                                                                                                                                                                                                                                         769
                                                                                                                                                                                                                                                                                                                                                                            1061
                                                                                                                                                                                                                                                                                                                                                                                                                                           1001
                                                                     1007
                                                                                                                                                                       1237
                                                                                                                                                                                                                                        1177
                                                                                                                                                                                                                                                                                                        1118
                                                                                                                                        947
                                                                                                                                                                                                        889
                                                                                                                                                                                                                                                                         829
                                                                                                                                                                                                                                                                                                                                                                                                             709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     521
```

밁 δ 밁 S

5

밁

S

밁 δ 밁 5 뭐

Ś 밁 5 В S 밁 S 밁 Ş 밁 ð

```
Sequence 1055, Application US/10017161

Publication No. US20030143668A1

GENERAL INFORMATION:
APPLICANT: SUWA, MAKIKO
APPLICANT: ASAL, KIYOSHI
APPLICANT: ABURATANI, HIROYUKI
ITILE OF INVENTION: NOVEL G PROTEIN-COUPLED RECEPTORS
FILE REFERENCE: 084335/0152

FULE REFERENCE: 084335/0152

CURRENT APPLICATION NUMBER: US/10/017,161

CURRENT FILING DATE: 2002-12-18

PRIOR FILING DATE: 2001-06-18

PRIOR FILING DATE: 2001-06-18

NUMBER OF SEQ ID NOS: 2430

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 1055

LENGTH: 1369
                                                                                                                                                                                                                                                                                                                                             ; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: SOURCE
; LOCATION: (1)..(1369)
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (201)..(1169)
US-10-017-161-1055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 9
US-10-017-161-1055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                        밁
                                                                                    S
                                                                                                                             유
                                                                                                                                                                                         멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ₽
                                                                                                                                                                                                                                                                        Query Match 39.7%; Score 1040.6; DB 15; Length 1369; Best Local Similarity 91.7%; Pred. No. 4.9e-283; Matches 1100; Conservative 0; Mismatches 99; Indels 0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1068 GGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGCCTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1368 GGA 1370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1658 GGA 1660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1308 TCTAACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTT 1367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1358 GGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGAAGGTGGAGGGTGGCTTCC
                        642
                                                                                                                                                      522 GAACTGACAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC
                                                                                                                                                                                                     171 TCCAGGGTCACCAGACTAGGGTTTCTGAGCATGGATCCAACCATCTCGAACCTTGGACACA
                                                                                                                             231 GAACTGACACCAATCAACGGAACTGAGGAGACTCTTTGCTACAAGCAGACCTTGAGCCTC
                                                                                                                                                                                                                                      462 TCATGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTCAGACAGGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTCAGACAGGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTAGCCTTCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTA 1307
                                                          ACGGTGCTGACGTGCATCGTTTCCCTTGTCGGGCTGACAGGAAACGCAGTTGTGCTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTTAGCCTTCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCT
CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
                                                                                ACGGGGCTGACGTGCATCGTTTCCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCTAACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTT
                                                                                                                                                                                                                                          521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1417
                        701
                                                        350
                                                                                           641
                                                                                                                               290
                                                                                                                                                                   581
                                                                                                                                                                                                      230
                                                                                                                                                                                                                                                                            0
```

Oy 1542 GCCTTCTGCCTCAGAAATGTCTCAGGGGTCCCTCAAGGTCTTCGAATAGATCTTATCTA Db 1251 GCCTTCTGCCTCAGAAATGTCTCAGGGTCCTCAAGGTCTTCAAATAGATGTTTATCTA OY 1602 ACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTTAGA Db 1311 ACCTGACAGTTGCGGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTAGA  1311 ACCTGACAGTTGCGGTTTTCACCCCATGGAAAGCATTAGTCTGACAGTACAATGTTTAGA	1482	OY 1422 GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA	Qy 1362 CTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGCTTCCTCAG	QY 1302 ATTTACTTCCTTCGTGGGCTCCTTTAGGCAGACTAAATAGGCAGAACCTGAAGCTGGTT	OY 1242 TGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCC	QY 1182 CCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT	Qy 1122 CTGACCAGGCTGTACGTGACCATCCTCACAGTGCTGGTCTTCCTCTCTGTGG	QY 1062 CTCTGTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCG	Qy 1002 GTTTGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTT	Qy 942 CIGCTGCGGAGTATCCTGGAGTGGATTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT	Qy 882 CACTGCCGCCCCAGATACCTGTCATCGGTCATGTGTGTCTCCTGCTCTGGGCCCTGTC	Qy 822 AGCATGCTGAGCGCCATCAGCACCGAGCGCTGTCCCATCCTGTGGCCCATCTGGTA	Qy 762 CGCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA	QY 702 GCCGACTTCCTCTTCCTTACGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATC	351
CTCAAGGICTICGAATAGAIGITTAICTA 1601	) A-A	AGCAGTGAGGAAGAACCTCTGCCCTGTCA 1481              AGCAGTGAGGAAGAGCCTCTGCCCTGTCA 1190	TOGATGAAGGTGGAGGGTGCTTCCTCAG 1421 	GTCAAAATAGGCAGAACCTGAAGCTGGTT 1361 	CCGCTCTTAACAGCAGTGCCAACCCCATC 1301 	AGGATCCACCTGGATTGGAAAGTCTTATTT 1241                              RGATCCACGTGGACAGGGAAGTCTTATTT 950	ACAGTGCTGGTCTTCCTCCTCTGTGGCCTG 1181	AGGATTCTCTGTGGATCCCGGAAGATGCCG 1121	ATCGCGTGGCTGGTTTTTTTATGTGTGGTT 1061           	NGTGACTTCCTGTTTAGTGGTGCTGATTCT 1001 	TOATGTGTGTCCTGCTCTGGGCCCTGTCC 941	RECCTGTCCATCCTGTGGCCCATCTGGTAC 881	TGATGACCTTTCCCTACTTTATAGGCCTA 821	VEATGTTCGCCGTTACGCCTCATCATATC 761	

RESULT 10
US-10-292-798-897
; Sequence 897, Application US/10292798
; Publication No. US20030235833A1
; GENERAL INFORMATION:
; APPLICANT: SUMA, MAKIKO

```
APPLICANT: ANAL, NITAKA
APPLICANT: AKIYAMA, YUTAKA
APPLICANT: ABURATANI, HIROYUKI
ITITLE OF INVENTION: GUANOSINE TRIPHOSPHATE-BINDING PROTEIN COUPLED RECEPTORS
FILE REFERENCE: 084335/166
CURRENT APPLICATION NUMBER: US/10/292,798
CURRENT FILING DATE: 2002-11-13
PRIOR APPLICATION NUMBER: 10/017,161
PRIOR FILING DATE: 2001-12-18
PRIOR FILING DATE: 2001-12-18
PRIOR FILING DATE: 2001-06-18
NUMBER OF SEQ ID NOS: 2070
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 897
LENGTH: 1369
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
LOCATION: SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; NAME/KEY: CDS
; LOCATION: (201)..(1169)
US-10-292-798-897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches 1100;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE: (1)..(1369)
                                                                                           1002
                                                              711
                                                                                                                                                          942
                                                                                                                                                                                         591
                                                                                                                                                                                                                                                                                   822
                                                                                                                                                                                                                                                                                                                  471
                                                                                                                                                                                                                                                                                                                                                 762
                                                                                                                                                                                                                                                                                                                                                                                411
                                                                                                                                                                                                                                                                                                                                                                                                              702
                                                                                                                                                                                                                                                                                                                                                                                                                                               351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        231 GAACTGACACCAATCAACGGAACTGAGGAGTCTCTTTGCTACAAGCAGACCTTGAGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            522 GAACTGACACAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     171 TCCAGGGTCACCAGACTAGGGTTTCTGAGCATGGATCCAACCATCTCAACCTTGGACACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     462 TCATGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA
                CTCTGTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCG
                                                                                   GITTGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTT
                                                                                                                                             CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT
                                                                                                                                                                                         CGCTGCCACCGCCCACACACCTGTCAGCGGTGTGTGTGTCTTGCTCTGGGCCCTGTCC
                                                                                                                                                                                                           CACTGCCGCCGCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCC
                                                                                                                                                                                                                                                                                                                                                                                GCAGACTTCCTCTCCTCAGCGGCCGCCTATATATTCCCTGTTAAGCTTCATCAGTATC
                                                                                                                                                                                                                                                                                                                                                                                                              GCCGACTTCCTCTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACGGTGCTGACGTGCATCGTTTCCCTTGTCGGGCTGACAGGAAACGCAGTTGTGCTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGG
                                                              GCTTGGTGTCAAACATCAGATTTCATCACAGTCGCGTGGCTGATTTTTTTATGTGTGGTT
                                                                                                                          CTGCTGCGGAGCATCCTGGAGTGGATGTTATGTGGCTTCCTGTTCAGTGGTGCTGATTCT
                                                                                                                                                                                                                                                                                   AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC
                                                                                                                                                                                                                                                                                                                  CCCCATACCATCTCTAAAATCCTCTATCCTGTGATGATGTTTTCCTACTTTGCAGGCCTG
                                                                                                                                                                                                                                                                                                                                                CGCCATCCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
CTCTGTGGGTCCAGCCTGGTCCTGATCAGGATTCTCTGTGGATCCCGGAAGATACCG
                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                39.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 1040.6; DB 15; Length Pred. No. 4.9e-283; 0; Mismatches 99; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1369;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                               1121
                                                                                                                                                                                                                                                                                                                  530
                                                                                                                                                                                                                                                                                                                                                 821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      521
                                                                                             1061
                                                                                                                                                          1001
                                                                                                                                                                                         650
                                                                                                                                                                                                                        941
                                                                                                                                                                                                                                                     590
                                                                                                                                                                                                                                                                                   881
                                                                                                                                                                                                                                                                                                                                                                                  470
                                                                                                                                                                                                                                                                                                                                                                                                              761
                                                                                                                                                                                                                                                                                                                                                                                                                                               410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     230
830
                                                                                                                          710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           350
                                                              770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                US-10-183-116-32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    891
```

Ś

밁 á 밁 δ 뮍 δ 밁 5 日 S 吊 S

뭐

Ś 밁 S 밁

```
RESULT 11
US-10-183-116-32
                                                                                                                                                                                                                                                                      PRIOR APPLICATION NUMBER: US 60/222,344
PRIOR FILLING DATE: 2000-08-01
PRIOR APPLICATION NUMBER: US 60/202,027
PRIOR FILLING DATE: 2000-05-04
PRIOR FILLING DATE: 2000-11-03
PRIOR FILLING DATE: 2000-11-03
PRIOR APPLICATION NUMBER: US 60/285,493
PRIOR APPLICATION NUMBER: US 60/849,869
PRIOR APPLICATION NUMBER: US 09/849,869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 32, Application US/10183116 Publication No. US20030092035A1 GENERAL INFORMATION:
                                                                            SOFTWARE: FastSEQ for Windows Version 4.0
SEC ID NO 32
SEC 115 1604
TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Zylka, Mark
APPLICANT: Simon, Melvin
APPLICANT: Han, Sang-kyou
TITLE OF INVENTION: PAIN SIGNALING MOLECULES
FILE REFERENCE: CALTE.4C1CP1
CURRENT APPLICATION NUMBER: US/10/183,116
CURRENT FILING DATE: 2002-06-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Anderson, David J. APPLICANT: Dong, Xinzhong APPLICANT: Zylka, Mark
                                                                                                                                                                                                                      PRIOR FILING DATE: 2001-05-04
NUMBER OF SEQ ID NOS: 109
FEATURE: NAME/KEY: CDS
LOCATION: (433)...(1398)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          831 CTGACCAGGCTGTACGTGACCATCCTGCTCACAGTACTGGTCTTCCTCCTCTGTGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCTTCTGCCTCAGAAATGTCTCAGTGGTCCCCTCAAGGTCTTTCGAATAGATGTTTATCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACAGGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA 1481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTTACTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGTCATGTGCATCTAGTTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCTGACAGTTGCGGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGA 1660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCTTCTGCCTCAGAAATGTCTCAGTGGTTCCTCAAGGTCTTCAAATAGATGTTTATCTA 1310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACAGGACTTTGAGAGCAACACTGCCCTGCCACCCTTGACAATTATATGCGTTTTTCTTA 1250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAAATCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAGCCTCTGCCCTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCCAGAGGGCTCTGCAGGACGCGTCTGAGGTGGATGAAGGTGGAGGGCAGCTTCCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGTCATGTTCATCTAGTTTCCTATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCTTTGGCATTCAGTTTTTCCTATTTTTATGGATCCACGTGGACAGGGAAGTCTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           890
```

```
S
                                                                                                    밁
                                                                                                                           S
                                                                                                                                                                    δ
                                                                                                                                                                                              밁
                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                        र्
                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ર્જ
               밁
                                       ð
                                                             망
                                                                              र्
                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 1090; Conserv
                                                                                                                                                                                                                                         1067
1482
                                                                                    1366
                                                                                                                                                                          1246
                                                                                                                                                                                                                                                                                    1007
                                                                                                                                                                                                                                                                                                                                                    1006
                                                                                                                                                                                                                                                                                                                              947
                                                                                                                                                                                                                                                                                                                                                                          887
                                                                                                                                                                                                                                                                                                                                                                                                                    827
                                                                                                                                                                                                                                                                                                                                                                                                                                        988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      586 GGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               526 TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTTGAGCTTCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                              767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          466 GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC
                                                                                                                                                                                                                                                                                                                                                                                    TGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGGCACCAGACTTAGAGTTTCTGAGCATGGATCCAACCGTCCCAGTCTTCGGTACAAAAC
GACAGGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTA 1541
                                 CCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAACCTCTGCCCT-----GTCA
                                                                            AGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAA
                                                                                                                       ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC
                                                                                                                                                                      ATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCCATCATTT
                                                                                                                                                                                               TCGGCATTCTGGGGGCCCTAATTTACAGGATGCACCTGAATTTGGAAGTCTTATATTGTC
                                                                                                                                                                                                                    TTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTC
                                                                                                                                                                                                                                         CCAGGCTGTACGTGACCATCCTGCTCACAGTGCTGGTCTTCCTCCTCTGCGGCCTGCCCT
                                                                                                                                                                                                                                                       CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCT
                                                                                                                                                                                                                                                                                               GTGGGTCCAGCCTGGTCCTGCTGGGATCTCTGTGGATCCCGGAAGATGCCGCTGA
                                                                                                                                                                                                                                                                                                                              GGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCT
                                                                                                                                                                                                                                                                                                                                                                          TGTTTAGTATGCTGGAGTGGAGGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                     GCCGCCGCCCACACCCTGTCAGCGGTCGTGTGTGTCCTGCTCTGGGGCCCTGTCCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                               GCCGCCGCCCAGATACCTGTCATCGGTCATGTGTGTGTCCTGCTCTGGGCCCTGTCCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCTGTTCTGTGGCCCCATCTGGTACCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAATCAGACCCTGAGCTTCACGG
                    AGAGGGCTCTGCAGGACAAGCCTGAGGTGGATAAAGGTGAAGGGCAGCTTCCTGAGGAAA
                                                                                                           ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC
                                                                                                                                                    ATGTTTATCTGGTTTGCATGTCCCTGTCCTCTAAACAGTAGTGCCAACCCCATCATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 38.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 1013.6; DB 14; Lengt
Pred. No. 2.4e-275;
0; Mismatches 104; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                    1426
                                          1481
                                                                                     1425
                                                                                                         1306
                                                                                                                               1365
                                                                                                                                                                        1305
                                                                                                                                                                                               1186
                                                                                                                                                                                                                    1245
                                                                                                                                                                                                                                                               1185
                                                                                                                                                                                                                                                                                                         1125
                                                                                                                                                                                                                                                                                                                                                    1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   705
                                                                                                                                                     1246
                                                                                                                                                                                                                                          1126
                                                                                                                                                                                                                                                                                                                              1006
                                                                                                                                                                                                                                                                                                                                                                          946
                                                                                                                                                                                                                                                                                                                                                                                               1005
                                                                                                                                                                                                                                                                                                                                                                                                                     988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    525
                                                                1366
                                                                                                                                                                                                                                                                                     1066
                                                                                                                                                                                                                                                                                                                                                                                                                                         945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          586
                                               S
                                                                                                                                                                              ঠ
                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
         ঠ
                              밁
                                                                          밁
                                                                                        5
                                                                                                                   밁
                                                                                                                                      S
                                                                                                                                                              밁
                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               맑
```

```
APPLICANT: LifeSpan Biosciences
APPLICANT: Brown, Joseph P.
APPLICANT: Brown, Joseph P.
APPLICANT: Burmer, Glenna C.
APPLICANT: Roush, Christine L.
TITLE OF INVENTION: ANTIGENIC PEPTIDES AND ANTICLE OF INVENTION: ANTIGENIC PEPTIDES AND ANTICLE OF INVENTION NUMBER: US/10/225,567A
CURRENT APPLICATION NUMBER: US/10/225,567A
CURRENT FILING DATE: 2001-12-19
PRIOR APPLICATION NUMBER: 60/257,144
PRIOR FILING DATE: 2000-12-19
NUMBER OF SEQ ID NOS: 2292
SOFTWARE: PatentIn version 3.1
SEQ ID NO 688
LENGTH: 1604
TYPE: DNA
ORGANISM: Homo sapiens
US-10-225-567A-688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 12
US-10-225-567A-688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 38.7
Best Local Similarity 91.0
Matches 1090; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 688, Application US/10225567A Publication No. US20030113798A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1427
                        946
                                                                                                                                                                                                                                                                                                         647
                                                                                                                                                                                                                                                                                                                                                                                       587
                                                                                                                                                                                                                                                                                                                                                                                                                             646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       466 GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC
                                                                827
                                                                                                     988
                                                                                                                                             767
                                                                                                                                                                                  826
                                                                                                                                                                                                                            707
                                                                                                                                                                                                                                                                   766
                                                                                                                                                                                                                                                                                                                                            706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          526 TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTTGAGCTTCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCTGACGTGCATCGTTTCCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTT
                                                                                       GCCGCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGC
                                                                                                                                                                            TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCCATCTGGTACCACT
                                                                                                                                                                                                                          ACTICCICTICCTIAGCGGCCACATIATATGTICGCCGTIACGCCTCATCAATATCCGCC
                                                                                                                                                                                                                                                                                                                                                                                                          TGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGGGCACCAGACTAGAGTTTCTGAGCATGGATCCAACCGTCCCAGTCTTCGGTACAAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGG 1659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCTTCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTTATCTA 1601
                                                                eccecceccicacacacciercaeceercerererererereredeseccierecerece
                                                                                                                                             TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCTGTTCTGTGGCCCATCTGGTACCGCT
                                                                                                                                                                                                                                                                                                           ACTTCCTCTTCCTCAGCTTCCAGATTATACGTTCGCCATTACGCCTCATCAATATCAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGCTGACGTGCATCATTTCCCTTGTCGGACTGACAGGAAACGCGGTAGTGCTCTGGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAATCAGACCCTGAGCTTCACGG
                                                                                                                                                                                                                                                                                                                                                                                          TGGGCTACCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGCCGCAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGG 1604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                38.7%; Score 1013.6; DB 15; 91.0%; Pred. No. 2.4e-275;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Mismatches 104;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AND ANTIBODIES FOR G PROTEIN-COUPLED RECEPTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1486
                             1005
                                                                  986
                                                                                                                                                 826
                                                                                                                                                                                      885
                                                                                                                                                                                                                            766
                                                                                                                                                                                                                                                                   825
                                                                                                                                                                                                                                                                                                             706
                                                                                                                                                                                                                                                                                                                                                  765
                                                                                                                                                                                                                                                                                                                                                                                          646
                                                                                                                                                                                                                                                                                                                                                                                                                               705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          525
```

```
Sequence 1041, Application US/10292798

Publication No. US20030235833A1

GENERAL INFORMATION:

APPLICANT: SUWA, MAKIKO
APPLICANT: SUWA, MAKIKO
APPLICANT: ASIAI, KIYOSHI
APPLICANT: ABURATANI, HIROYUKI
ITITLE OF INVENTION: GUNAOSINE TRIPHOSPHATE-BINDING PROTEIN COUPLED RECEPTORS
FILE REFERENCE: 084335/166

CURRENT PILLORION NUMBER: US/10/292,798

CURRENT FILLING DATE: 2002-11-13

PRIOR APPLICATION NUMBER: 10/017,161

PRIOR FILLING DATE: 2001-12-18

PRIOR FILLING DATE: 2001-06-18

NUMBER OF SEQ ID NOS: 270

SOFTWARE: Patentin Ver. 2.1

LEQ ID NO 1041
                                                                                                                                                                                                                                                                                                                                                                                            RESULT 13
US-10-292-798-1041
LENGTH: 1369
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
LOCATION: source
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1247
                                                                                                                                                                                                                                                                                                                                                                                                                                                            1547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTTGG 1659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCTTCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTA 1601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GACAGGACTTTGAGAGCAATGCTGCCCTGCCCACCCTTGACAATTATATGCATTTTTTCTTA 1541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCT----GTCA 1481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATGTGCATCTAGTTTCCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCCATCATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCCTGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGGGTCCAGCCTGGTCCTGCTGGTCAGGATTCTCTGTGGATCCCCGGAAGATGCCGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACGGGACTTTGAGAGCAACACTGTCCTGCCACCCTTGACAATTACATGCGTTTTTCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGTTTATCTGGTTTGCATGTCCCTGTCCTCTAAACAGTAGTGCCAACCCCATCATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCGGCATTCTGGGGGGCCCTAATTTACAGGATGCACCTGAATTTGGAAGTCTTATATTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTGTTTCCAGCCTGGTCCTGGTCAGGATCCTCTGTGGATCCCGGAAGATGCCGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGAGGGCTCTGCAGGACAAGCCTGAGGTGGATAAAGGTGAAGGGCAGCTTCCTGAGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCAGGCTGTACGTGACCATCCTGCTCACAGTGCTGGTCTTCCTCCTCTGCGGCCTGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGTTTAGTATGCTGGAGTGGAGGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               946
                         S
                                                                 문
                                                                                         5
                                                                                                                               유
                                                                                                                                                          S
                                                                                                                                                                                               맑
                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                            맑
                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; NAME/KEY: CDS
; LOCATION: (201
US-10-292-798-1041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 91.0
Matches 1088; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LOCATION: (1)..(1369)
FEATURE:
NAME/KEY: CDS
LOCATION: (201)..(1169)
     1075
                               1366
                                                                                                                                                                                                                                                                                                                                                              1066
                                                                   1015
                                                                                                 1306
                                                                                                                                                                                                                               1186
                                                                                                                                                                                                                                                                                               1126
                                                                                                                                                                                                                                                                                                                                                                                                                            1006
                                                                                                                                                               1246
                                                                                                                                 955
                                                                                                                                                                                                 895
                                                                                                                                                                                                                                                               835
                                                                                                                                                                                                                                                                                                                               775
                                                                                                                                                                                                                                                                                                                                                                                              715
                                                                                                                                                                                                                                                                                                                                                                                                                                                             655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   466
 AGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTTCCTCAGGAAA 1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC
                                                                                                                                                  ATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTT 1305
                                                                                                                                                                                                                    TIGGCATICAGIGGGCCCIGITTICCAGGAICCACCIGGAIIGGAAAGICTIATITIGIC
                                                                                                                                                                                                                                                                                CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCTCTGTGGCCTGCCCT 1185
                                                                                                                                                                                                                                                                                                                                                  GTGGGTCCAGCCTGGTCCTGCTGGGATCTCTCTGTGGATCCCGGAAGATGCCGCTGA 1125
                                                                                                                                                                                                                                                                                                                                                                                                                  TGTTTAGTATGCTGGAGTTGGAGGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGCGGAGTATCCTGGAGTGGATGTTCTGTGTGACTTCCTGTTTTAGTGGTGCTGATTCTGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCGCCGCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACTICCTCTICCTIAGCGGCCACATIATATGTTCGCCGTTACGCCTCATCAATATCCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGGTTGTGCTCTTGGCTCC
                                                                                  ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC 1365
                                                                                                                                                                                                                                                                                                                               GTGTTTCCAGCCTGGTCCTGGTCAGGATCCTCTGTGGATCCCGGAAGATGCCGCTGA
                                                                                                                                                                                                                                                                                                                                                                                               GCCGCCCCACACACCTGTCAGCGGTCGTGTGTGTCCTGCTCTGGGGCCTGTCCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACTTCCTCTCCTCAGCTTCCAGATTATACGTTTTGCCATTACGCCTCATCAATATCAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGGGCTACCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGCCGCAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGCTGACGTGCATCATTTCCCTTGTCGGACTGACAGGAAACGCGGTTGTGCTCTGGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGGCACCAGACTAGGGTTTCTGAGCATGGATCCAACCGTCCCAGTCTTCGGTACAAAAC
                                                                                                                                 ATGTTTATCTGGTTTGCATGTCCCTGTCCTCTAAACAGTAGTGCCAACCCCATCATTT
                                                                                                                                                                                                   TCGGCATTCTGGGGGCCCTAATTTACAGGATGCACCTGAATTTGGAAGTCTTATATTGTC
                                                                                                                                                                                                                                                                 CCAGGCTGTACGTGACCATCCTGCTCACAGTGCTGGTCTTCCTCCTCTGCGGCCTGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            38.7%; Score 1012.2; DB 15; Length 91.0%; Pred. No. 5.4e-275; tive 0; Mismatches 103; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                               774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1005
                                                                    1074
                                                                                                                                   1014
                                                                                                                                                                                                                                 1245
                                                                                                                                                                                                                                                                                                                                                                                                                             1065
                                                                                                                                                                                                   954
                                                                                                                                                                                                                                                                 894
                                                                                                                                                                                                                                                                                                                                 834
                                                                                                                                                                                                                                                                                                                                                                                                                                                             714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   234
```

S

뮍

δ 밁 성 유

ક 밁 S 밁 S 밁 ঠ 뫄 S 밁 S 밁 5 멍 S 밁

Query Match 37.0%; Score 969; DB 9; Length 969; Best Local Similarity 100.0%; Pred. No. 7.2e-263; Matches 969; Conservative 0; Mismatches 0; Indels 0; Gaps 0; Matches 969; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  492 ATGGATTCAACCATCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG 551  Qy 492 ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG 551	; ORGANISM: Artificial Sequence ; FEATURE: ; OTHER INFORMATION: No. US20020193584Alel Sequence US-09-995-225-19	; SOPTWARE: Patentin version 3.1 ; SEQ ID NO 19 ; LENGTH: 969 ; TYPE: DNA	FILING DATE: 2001-00 APPLICATION NUMBER: FILING DATE: 2001-0 R OF SEC ID NOS: 67		PRIOR FILING DATE: 2001-02-20 PRIOR FILING DATE: 2001-02-20 PRIOR PILING DATE: 2001-04-06 PRIOR PILING DATE: 2001-04-06 PRIOR APPLICATION UNMBER: 60/282,032	FILING DATE: 2001-0 APPLICATION NUMBER: FILING DATE: 2001-0 ABBLICATION NUMBER:	PRIOR FILING DATE: 2000-11-27  PRIOR PILING DATE: 2000-12-12  PRIOR PILING DATE: 2000-12-12  PRIOR PILING DATE: 2000-12-12  PRIOR PILING DATE: 2007-12-12	; PRIOR FILING DATE: 1998-10-13 ; PRIOR APPLICATION NUMBER: PCT/US99/23938 ; PRIOR FILING DATE: 1998-10-13 ; PRIOR PILING DATE: 1998-16-13	FILE REFERENCE: AREN-0308 CURRENT APPLICATION NUMBER: US/09/995,225 CURRENT FILING DATE: 2001-11-26 PRIOR APPLICATION NUMBER: 09/170,496	APPLICANT: Lowitz, Kevin P.  APPLICANT: Pride, Cameron  APPLICANT: Pride, Cameron  TITLE OF INVENTION: Endogenous And No. US20020193584A1-Endogenous Versions of Human G  TITLE OF INVENTION: Receptors	GENERAL INFORMATION:  APPLICANT: Chen, Ruoping APPLICANT: Chu, Zhi Liang APPLICANT: Dang APPLICANT: Dang	RESULT 14 US-09-995-225-19 IS-09-995-225-19 Sequence 19, Application US/09995225 Publication No. US2002019358481	Db 1315 ACCTGACAGTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTT 1369	1502 ACCTRANCE CONSTRUCTION OF STANDARD			Qy 1426 CCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGCATCTGCCCTGTCA 1481
RESULT 15 US-09-995-225-19 ; Sequence 19, Application US/09995225 ; Publication No. US20030139588A9 ; GENERAL INFORMATION: ; APPLICANT: Chen, Ruoping	Qy 1452 GAGCAGTGA 1460          Db 961 GAGCAGTGA 969	Qy 1392 GTGGATGAAGGTGGAGGGTGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTG 1451	Qy 1332 CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG 1391	QY 1272 TCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG 1331	Qy 1212 AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTCCTG 1271	QY 1152 ACAGTGCTGGTCTTCCTCCTCTGTGGCCTTTTGGCATTCAGTGGGCCCTGTTTTCC 1211	OY 1092 AGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC 1151	Qy 1032 ATCGCGTGGTTGTTTTTTATGTGTGGGTTCTCTGTGGGTCCAGCCTGGTCCTGGTC 1091	Qy 972 TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTAAACGTCAGATTTCATTACA 1031	Qy 912 GTCATGTGTGTCCTGGGGCCCTGTCCCTGCTGCGGAGTGATCCTGGAGTGGÀTGTTC 971	QY 852 TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCGAGATACCTGTCATCG 911	OY 792 GTGATGACCITTCCCTACTTTATAGGCCTAAGCATGCTGAGGCGCCATCAGCACCGAGCGC 851	OY 732 ATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCAAAATCCTCAGTCCT 791	Qy 672 GTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACATTCCTTTTCCTTAGCGGCCACATT 731	Qy 612 GCGCTGACAGGAAACGCGGTTGTGCTCTGGGCTGCCGCATGCGCAGGAACGCT 671	Qy 552 ACTCCTTGCTACAAGCAGACCCTGAGGTTCACGGGGCTGACGTGCATCGTTTCCCTTGTC 611	Db 1 ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG 60

|--|

유 성	유 성	유	유성	유 성	유	유 성	유	유성	유성	8
ь	Д	ц	ь	ь	Д	ь	H			
1452 961	1392 901	1332 841	1272 781	1212 721	1152 661	1092 601	1032 541	972 481	912 421	361
GAGCAGTGA 1460           GAGCAGTGA 969	GTGGATGAAGGTGGAGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTG 1451 	CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG 1391 	TCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG 1331	AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTCCTG 1271	ACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCTTTGGCATTCAGTGGGCCCTGTTTTCC 1211	AGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC 1151	ATCGCGTGGCTGGTTTTTTATGTGTGGTTCTCTGTGGGTCCAGCCTGGTCCTGCTGGTC 1091	TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACA 1031	GTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGCTGCGGAGTATCCTGGAGTGGATGTTC 971	TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCCCAGATACCTGTCATCG 420

Search completed: October 29, 2004, 19:12:59 Job time : 1223 secs

\* -4

```
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                            000 00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŏ.
            Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                   2618
2128.6
2128.6
11987.4
11942.2
11992.2
11992.2
11992.2
1483.8
1483.8
1483.8
1483.8
1483.8
1483.8
1483.8
1483.8
1483.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        October 29, 2004, 09:26:47 ; Search time 10822 Seconds (without alignments) 11440.070 Million cell updates/sec
                                                                                               100.0 2618
81.3 17293
81.3 17293
95.9 192618
70.4 156839
68.5 165490
62.5 165490
56.7 2040
56.7 2040
56.7 2040
56.7 2040
56.7 1697
46.9 18923
45.6 1369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4526729 seqs, 23644849745 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IDENTITY_NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-867-570-1
2618
                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GenEmbl: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gb ba

gb in:

gb in:

gb on:

gb on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.
       2040
1697
189230
1369
8622
3 1400
3 1400
3 1400
1400
       AY042213
BC067292
AC103974
AX647081
AX429467
AX2299158
AX229158
AX549388
AY042215
AX646705
                                                                                                                                                                                                                   AX429465
AC108009
AC090099
AC020568
AC107948
AC107948
AC139482
AC139482
AC139482
AC139482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9053458
AX429465 Sequence
AC108007 Homo sapi
AC090099 Homo sapi
AC020568 Homo sapi
AC107948 Homo sapi
AC139482 Homo sapi
AC139482 Homo sapi
AC139482 Homo sapi
AC139481 Homo sapi
AC139413 Sequence
AX299143 Sequence
AX942213 Homo sapi
BC067292 Homo sapi
AC103974 Homo sapi
AC103974 Homo sapi
AX647081 Sequence
AX429467 Sequence
AX429158 Sequence
AX5499158 Sequence
AX646705 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Description
```

45
833
31.8
969
თ
AX498194
AX498194

## ALIGNMENTS

0у 1	Db 1	Qy 1	В	Ş	Db	Q	Query Match Best Local Si Matches 2618;	ORIGIN	source	FEATURES		JOURNAL	TITLE	AUTHORS		ORGANISM	SOURCE	VERSION	DEFINITION	Locus	RESULT 1
181 CAGTCTGTAGAGCTATTAGCCAGTTAAACCCATTTCCTTCATAAATTTCCCAGTCTCAGG 240	121 CACCAGGATTGGAAGCTTCCTGAGGCCTCCCCAGAAGCAGAAGCTGCTATGCTTCTTGTA 180	121 CACCAGGATTGGAAGCTTCCTGAGGCCTTCCCCAGAAGCAGAAGCTGCTATGCTTCTTGTA 180	61 CCTCCCTCTCTTACTCCTGCTCTCACCATGTGAGACGCCTCGCTCCCCCTTTGCCTTT 120	61 CCTCCCTCTCTCTTACTCCTGCTCTCACCATGTGAGACGCCTCGCTCCCCCTTTGCCTTT 120	1 ACAATTGCCGCGAATTCGGCACGAGATGAAATCTAGTTTTAAAAGCGTGTAGCACCT 60	1 AACAATTGCCGCGAATTCGGCACGAGATGAAATCTAGTTGTTTAAAAGCGTGTAGCACCT 60	Query Match 100.0%; Score 2618; DB 6; Length 2618; Best Local Similarity 100.0%; Pred. No. 0; Matches 2618; Conservative 0; Mismatches 0; Indels 0; Gaps 0;		_		z	encoding human gpcr proteins, and uses thereor Patent: WO 0234914-A 1 02-MAY-2002;	human g-protein coupled recept	Thao.O., Beasley.E.M. and Wei.M.H.	Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.		Homo sapiens (human)	AX429465.1 GI:21540763	1 from Patent W00234914.	AX429465 2618 bp DNA linear PAT 21-JUN-2002	

B Q B Q B Q B B

1141 CCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCT  1261 CCATTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTT  1201 CCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTT  1201 CCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTT  1261 CCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCT  1261 CCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCCATCATTTACTTCTTCGTGGGCT  1261 CCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCCATCATTTACTTCTTCGTGGGCT  1261 CCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCCATCATTTACTTCTTCCGTGGGCT  1261 CCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCCATCATTTACTTCTTCCGTGGGCT  1261 CCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCCATCATTTACTTCTTCCGTGGGCT  1261 CCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCCATCATTTACTTCTTCCGTGGGCT  1261 CCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCCATCATTTACTTCTTCCGTGGGCT  1261 CCATTTTCCTGTCCGCCTCTTAACAGCAGGTGCCAACCCCCATCATTTACTTCTTCCGTGGGCT  1261 CCATTTTCCTTGTCCGCCTCTTAACAGCAGGTGCCAACCCCCATCATTTACTTCTTCCGTGGGCT  1261 CCATTTTCCTGTCCGCCTCTTAACAGCAGGTGCCAACCCCCATCATTTACTTCTTCCGTGGGCT  1261 CCATTTTCCTTCCACCTCTTAACAGCAGGTGCCAACCCCCATCATTACTTCTTTCCGTGGGCT  1261 CCATTTTTCCTTGTCCGCTCTTAACAGCAGGTGCCAACCCCCATCATTACTTCTTCCGTGGGCT  1261 CCATTTTCCTTTCCTTCAGCTCTTTAACAGCTCCATCATTACTTCTTCTTCGTTGGGCT  1261 CCATTTTTCCTTTTCCTTTTACTTCTTCTTCTTCGTTGGTGCAACCCCCATCATTACTTCTTCTTCGTTGGTGGACT  1261 CCATTTTCCTTCAGTGCCAACCCCCATCATTACTTCTTCTTCGTTGGTGCAACCCCCATCATTACTTCTTCTTCGTTGGTGGACTT  1261 CCATTTTTCCTTTCCTTTACTTCTTCTTTCTTCTTCGTTGGTGACACCCCCATCATTACTTCTTCTTCGTTGGTGACACCCCCATCATTACTTCTTCTTCGTTGGTGACACCCCCATCATTACTTCTTCGTTGGTGACACCCCCATCATTACTTCTTCTTCGTTGGTGCAACCCCCATCATTACTTCTTCGTTCG	1021 ATTTCAATACAATCGCGTGGCTGGTTTTTTTTTTTTTTT	TATCCTGG	781 TCCTCAGTCCTGTGATGACCTTTCCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCCATCA 8	GCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCTCTTACTTA		TGGGATGTCAAACAGGATAAAGAAGAATGGAAAGCAAATCCTCATGGGTCATCAGACTGG		181 CAGTCTGTAGAGCTATTAGCCAGTTAAACCCATTTCCTTCATAAATTTCCCAGTCTCAGG 2 241 TATTTCTTTTTAGCAATTGAGAATGAACTAATACACAGAGAGAG
200 Qy 260 Db 260 Qy 320 Db	080 Oy 140 Db 140 Oy 200 Oy	960 Db 960 Qy 1020 Db 1020 Db	840 Db 840 QY 900 Db		2 P P P P P P P P P P P P P P P P P P P	94 480 Db Db 97 540 Db Db Db Db	300 QY 360 Db 360 QY 420 QY	240 Qy 300 Db
GRAGAGAATTCTTCATACTTCCAGGTTTTGTATAATTGTTCTGATTGTAACTTTCAGT [	GCCTATAAATATGTCCCACCAGTTTCATTTTGGCCATTGGAAACCTCAATATTG GCCTATAAATATGTCCCACCAGTTTCATTTTGGCCATTGGAAACCTCAATATTG GCCTATAAATATGTCCCACCAGTTTCATTTTGGCCATTGGAAACCTCAATATTG GCCTATAAATATGTCCCACCAGTTTCATTTTGGCCATTTGAAACCTCAATATTT GACCAAATATTTTTTGAAAACCATTTATTTATTTACTTAC	GAGAGAGATTCTCCCTTCATAAAAACAGTCTTAGAAATTGGTTTTATGAATAAGCCCTCTCCCTGTCATTTTTTGTCACACAGCATGGTGACAAGTCGTTTGGCCTTGGTTTTTTTT		ATTGT ATTGT ATTGT CCTGA CCTGA	CACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGATTCCCTTGATATTACCAGT	TGCTGCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCTTCTGCCTCAGAAATTATTTTCTTAGCCTTCTGCCTCAGAAATTATTTCTTAGCCTTCTGCCTCAGAAATTATTTTTTTT	ACACGCCTGAGGTGGATGAAGGTGGAGGGTTGCCTCAGGAAACCCTGGAGCTGTCGG	1321 CCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGCTCTGCAGG 1380

2 2 2 2 2 2

```
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 2
AC108007/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                             AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CER Birren, B., Linton, L., Nusbaum, C., Lander, E., Ali, A., Allen, N., RS Birren, B., Linton, L., Nusbaum, C., Lander, E., Ali, A., Allen, N., RS Birren, B., Barna, N., Bastien, V., Boguslavkiy, L., Boukhgalter, B., Anderson, S., Barna, N., Campopiano, A., Chang, J., Chazaro, B., Choepel, Y., Colangelo, M., Collins, S., Collymore, A., Cook, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J. S., Dodge, S., Faro, S., Ginde, S., Gord, S., Goyette, M., Graham, L., Grand-Pierre, N., Hagos, B., Horton, L., Hulme, W., Iliev, I., Johnson, R., Jones, C., Kamat, A., Karatas, A., Kells, C., LaRocque, K., Lamazares, R., Landers, T., Lehoczky, J., Levine, R., Liu, G., MacLean, C., Macdonald, P., Major, J., Marquis, N., Matthews, C., McCarthy, M., McKernan, K., Meldrim, J., Meneus, L., Mihova, T., Mlenga, V., Murghy, T., Naylor, J., Wayyen, C., Nicol, R., Norbu, C., Norman, C.H., O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Peterson, K., Phunkhang, P., Pierre, N., Pollara, V., Raymond, C., Rogov, P., Roman, J., Rosetti, M., Roy, A., Santos, R., Schauer, S., Schupback, R., Seaman, S., Severy, P., Spencer, B., Stange-Thomann, N., Stojanovic, N., Strauss, N., Subramanian, A., Talamas, J., Tesfaye, S., Theodore, J., Topham, K., Travers, M., Travis, N., Trigillo, J., Vassiliev, H., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Ye, W.J., Young, G., Zainoun, J., Zembek, L., Zimmer, A. and Zody, M.
B 3 (bases 1 to 91923)

B birren, B., Musbaum, C., Lander, B., Ali, A., Allen, N., Anderson, S., Barra, N., Bastien, V., Bloom, T., Boguslavkiy, L., Boukhgalter, B., Camarata, J., Chang, J., Chazaro, B., Choepel, Y., Collymore, A., Cook, A., Cooke, P., DeArtllano, K., Dewar, K., Diaz, J.S., Dodge, S., Ferreira, P., Fitzgerald, M., Gage, D., Galagan, J., Gardya, S., Gord, S., Graham, L., Grand-Pierre, N., Hagos, B., Gardyna, S., Gord, S., Graham, L., Grand-Pierre, N., Hagos, B., Gardyna, S., Kells, C., Landers, T., Levine, R., Lindblad-Toh, K., Karatas, A., Kells, C., Landers, T., Levine, R., Lindblad-Toh, K., Liu, G., MacLean, C., MacDonald, P., Major, J., Matthews, C., McCarthy, M., Meldrim, J., Meneus, L., Mihova, T., Mlenga, V., McCarthy, T., Naylor, J., Necus, L., Mihova, T., Mlenga, V., Murphy, T., Naylor, J., Naylor, C., Nicol, R., Norbu, C., Norman, C.H., Phunkhang, P., Pierre, N., Raymond, C., Rette, R., Rise, C., Rogov, P., Roman, J., Roy, A., Schauer, S., Schupback, R., Seaman, S., Severy, P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens chromosome 11, clone CTD-3038L12, complete sequence. AC108007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 (bases 1 to 91923)
Birren,B., Nusbaum,C. and Lander,B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AC108007.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens chromosome 11, clone CTD-3038L12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AC108007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GACATACATGAACCTGGAAATATTGTGCTAAGGAAAATAAGCCAGACGACAATATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACATACATGAACCTGGAAATATTGTGCTAAGGAAAATAAGCCAGACGCCAAACAATATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCTCAATTATGGTATCTGGATAATAACTTACAGTTGGTACAGAATTCTGATACATGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (24-JAN-2002) Whitehead Institute/MIT Center for Genome 320 Charles Street, Cambridge, MA 02141, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Sutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GI:22655822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       91923 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRI 03-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
                                                                                                 repeat_region
                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                  repeat_region
                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
```

```
Smith.C., Spencer, B., Stange-Thomann, N., Stojanovic, N., Talamas, J., Tesfaye, S., Theodore, J., Topham, K., Travers, M., Vassiliev, H., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Young, G., Zainoun, J., Zembek, L., Zimmer, A. and Zody, M.

Direct Submission

Submitted (24-AUG-2002) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA

4 (bases 1 to 91923)

6 (cook, A., Cooke, P., Daom, T., Boguslavkiy, L., Boukhgalter, B., Cook, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Faro, S., Ferreira, P., PitzGerald, M., Gage, D., Galagan, J., Gardyna, S., Gord, S., Graham, L., Grand-Pierre, N., Horton, L., Huhne, W., Tilev, I., Johnson, R., Jones, C., Kamat, A., Kalls, A., Kalls, C., Landers, T., Levine, R., Lindblad-Toh, K., Muchan, S., Gord, S., Graham, L., Grand-Pierre, N., Hagos, B., Martes, A., Kalls, C., Landers, T., Levine, R., Lindblad-Toh, K., Murphy, T., Naylor, J., Naysen, C., Micol, R., Morbu, C., Kamat, A., Ferreira, P., Pierre, N., Hagos, B., Mihova, T., Mlenga, V., Phunkhang, P., Pierre, N., Raymond, C., Retta, R., Ree, C., Rogov, P., Smith, C., Spencer, B., Schauer, S., Schupback, R., Seaman, S., Severy, P., Smith, C., Spencer, J., Topham, K., Travers, M., Vassiliev, H., Viel, R., Vo, A., Wilson, B., W
```

Only the first 91.9 kb of this clone are being submitted. The remainder overlaps accession number AC055860 [WICGR project 19785].

/rpt\_family= ...... complement(2274. .2327) /rpt\_family="L2" .-ne\_ 4713 /rpt\_family="L11 complement(1858 1671 /rpt\_family="L2" 900. ..1001 Comp Location/Qualifiers , thr 햔 clone\_lib="CITD2 Human clone="CTD-3038L12" chromosome="11" organism="Homo sapiens" \_family="L2" \_xref="taxon:9606" \_family="L1MD2" \_family="L1MD2" family="L2" [ement(251. \_family="L1MD3" BAC"

2562 TGAA	502 C	2442 GAATTC:        7527 GAATTC:	2382 TCTGAC        7587 TCTGAC	322 T	2262 CTT     7707 CTT	202 767	142 TC 		2022 TTTT      7947 TTTT	962	902 A 067 A	1842 GAC     8127 GAC	1782 TCTTT)       8187 TCTTT	722 247	ωσ	602 A   367 A	542 (	482
CACAGAAAATAAA	CAGACGCCAAACAATATTG:                   CAGATGCCAAACAATATTG:	GATA	CTTTC	CTGATTGTAACTTTCAGTTA               CTGATTGTAACTTTCAGTTA	CTTACAGATTCTTTCAGT	ATTGGAAACCTCAATATT	GGACTAATGAACTI	GTAAAGACAATCGTGGCC	ATGAATAGCCCTCTCCTG	;aaaataatgaccti           ;aaaataatgaccti	CAATTCTTAATAA              CAATTCTTAATAA	ATGTTCCCCTGAAJ	TATACTTGTTTCC	CACTTTTCTGCACTTT	CTTGATATTACCAATACATTTTC	CCTGACAGTTGCAGTTTTCAC	3CCTTCTGCCTCAGAAA1 	GACAGGACTTTGAGAGC 
TAGGAGGATCCTG	rtgtaagttcaaattct <i>i</i>                  tgtaagttcaaattct <i>i</i>	CATGCTGTGACATACATGAACCTGGAAATATTGTG	CATGACAATCTCAATTATGGTAT( 	STTAGTTTTATGGC           STTAGTTTTATGGC	TTGTAGGAGAATTC            TGTAGGAGAATTC	Caatattgatttaaagtgg                Caatattgattttaaagtgg	CTGGACTAATGAACTAGTGAGGAGCCTATAAATATGTCCCAC 	CTTCC	rccrgrcarrigro	ragagagagattet          ragagagagattet	gctcaattcttaataagtgagttctgctacct 	actatgttccctgaaaatcatgttccctttatgactggaggcattactg 	PACCTGATAGTATO          PACCTGATAGTATO	CACTITICATIGIAATAAAAGGAGITGCIGICCACAACC 		$\alpha - \alpha$	ATGTCTCAGTGGTCC	ATGCTGCCCTGCC          ATGCTGCCCTGCC
GTGCTGGAAAAAAA	ATGAGGTATCO           TGAGGTATCO	CCTGGAAATATTGT             CCTGGAAATATTGT	TATCTGGATAATAA              ATCTGGATAATAA	.GTTTTATGGCTGTTTACATGAGAAG 	TTCATACTTCCAGG            TCATACTTCCAGG	JIGGAAATTATCTTGAAAACCATTTA 	AAATATGTCCCACC             NAATATGTCCCACC	TGAGAACTGGTAAG             GAGAACTGGTAAG	CACAGCATGGTGAC           CACAGCATGGTGAC	CCCTTCATAAAAAC              CCCTTCATAAAAAC	CTCTAAATTCCATTGAATT	TTATGACTGGAGGC           CTATGACTGGAGGC	naaaaggaagatto           naaaaggaagatto	3GAGTTGCTGTCCA            3GAGTTGCTGTCCA	CCTGTTATCTTGCACTGA              CCTGTTATCTTGCACTGA	SCATTAGTCTGACA            SCATTAGTCTGACA	CAGTGGTCCCTCAAGGTCTTCGAATAGATGTTT                CAGTGGTCCCTCAAGGTCTTCGAATAGATGTTT	accettgacaatta           nccettgacaatta
AAAAAA 2612	AAATTAGGAAATTC:            AAATTAGGAAATTC:	GCTAAGGAAAATAAG              GCTAAGGAAAATAAG	CTGGATAATAACTTACAGTTGGTACA	GCAAAACTGAAAACA              GCAAAACTGAAAACA	CAGTTGTAGGAGAATTCTTCATACTTCCAGGTTTTGTATAAATTGT 	ACCATTTATTATTCA	CAGTTTCATTTTGGCC	CCTTGAGAACTGGTAAGTTCTTATTTAGCTCT                  CCTTGAGAACTGGTAAGTTCTTATTTAGCTCT	TCATTTGTCCACAGCATGGTGACATGTTGGCCTTGGTT 	AAGCAAAATAATGACCTTAGAGAGAGAGTTCTCCCTTCATAAAAACAGTCTTAGAAATTGG 	GAATTCTCAGATATA             GAATTCTCAGATATA	ATTACTGCAGTTGGA 	atacttgtttcctacctgatagtatcaaaaaggaagattccttattaatctgtca 	CAACCCTAAAACTCT               CAACCCTAAAACTCT	CACTGAATCTTTCCTACTGAA 	Catggaaagcattagtctgacagtacaatgtttggat 	ATAGATGTTTATCTA             ATAGATGTTTATCTA	CAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTA 
	T 2561     7408	3 2501     7468	A 2441   A 7528	A 2381   A 7588	r 2321     7648	A 2261   A 7708	C 2201 C 7768	r 2141     7828	r 2081     7888	3 2021     7948	A 1961    -	9068     1901	1841     8128	T 1781     8188	1721   1 8248	r 1661     8308	1 1601   1 8368	1541   1 8428

문

**5 B 5** 

중 음 중

δ

δ

S

S

δ

ð

밁

닭

유 성

ð

S

밁

8 8 8 8

## 7407 TGAACACAGAAAATAAATTAGGAGGATCCTGGTGCTGGAAGATGGAGAGAA 7357

밁

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 3
AC090099/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM
                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                         AUTHORS
                                                                                                                                                                                                                                                                                                                                                              TITLE
                                                                                                                                                                                                                                                                                                                                                                          Submitted (14-FEB-2001) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA (CE 3 (bases 1 to 172939)

RS Birren, B., Nusbaum, C., Lander, E., Ali, A., Allen, N., Anderson, S., Barna, N., Bastien, V., Bloom, T., Boguslavkiy, L., Boukhgalter, B., Cook, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Faro, S., Ferreira, P., FitzGerald, M., Gage, D., Galagan, J., Gardyna, S., Gord, S., Graham, L., Grand-Pierre, N., Hagos, B., Horton, L., Hulme, W., Iliev, I., Johnson, R., Jones, C., Kamat, A., Kells, C., Landers, T., Levine, R., Lindblad-Toh, K., Liu, G., MacLean, C., Macdenald, P., Major, J., Matthews, C., McCarthy, M., Meldrim, J., Meneus, L., Mihova, T., Mlenga, V., Murphy, T., Naylor, J., Ngyen, C., Nicol, R., Norbu, C., Norman, C.H., O'Connor, T., O'Donnell, P., O'Neil, D., Ollver, J., Peterson, K., Phunkhang, P., Pierre, N., Raymond, C., Retta, R., Rise, C., Rogov, P., Smith, C., Spencer, B., Stange-Thomann, N., Stojanovic, N., Talamas, J., Tesfaye, S., Theodore, J., Topham, K., Travers, M., Vassiliev, H., Viel, R., Wilson, B., Wu, X., Wyman, D., Young, G., Zainoun, J., Direct, Shbrission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Lehoczky, J., Levine, R., Liu, G., MacLean, C., Macdonald, P.,
Marquis, N., Matthews, C., McCarthy, M., McBwan, P., McKarnan, K.,
McPheeters, R., Meldrim, J., Meneus, L., Mihova, T., Mlenga, V.,
Murphy, T., Naylor, J., Nguyen, C., Norbu, C., Norman, C. H.,
O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Peterson, K.,
Phunkhang, P., Pierre, N., Pollara, V., Raymond, C., Retta, R.,
Rieback, M., Riley, R., Rise, C., Rogov, P., Roman, J., Rosetti, M.,
Roy, A., Santos, R., Schauer, S., Schupback, R., Seaman, S., Severy, P.,
Sougnez, C., Spencer, B., Stange-Thomann, N., Stojanovic, N.,
Strauss, N., Subramanian, A., Talamas, J., Tesfaye, S., Theodore, J.,
Travers, M., Travis, N., Trigilio, J., Vassillev, H., Viel, R., Vo, A.,
Wilson, B., Wu, X., Wyman, D., Ye, W. J., Young, G., Zainoun, J.,
Direct, S., Schauer, A. and Zody, M.
Submitted (05-SEP-2002) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA 4 (bases 1 to 172339)
Birren, B., Nusbaum, C., Lander, B., Ali, A., Allen, N., Anderson, S., Barna, N., Bastien, V., Bloom, T., Boguslavkiy, L., Boukhgalter, B., Camarata, J., Chang, J., Chazaro, B., Choepel, Y., Collymore, A., Cook, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Faro, S., Ferreira, P., FitzGerald, M., Gage, D., Galagan, J., Gardyna, S., Gord, S., Graham, L., Grand-Pierre, N., Hagos, B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Birren, B., Linton, L., Nusbaum, C., Lander, B., Allen, N., Anderson, S. Barna, N., Bastien, V., Boguslavkiy, L., Bouklgalter, B., Brown, A., Camarata, J., Campopiano, A., Chospel, Y., Colangelo, M., Collins, S., Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Dodge S., Faro, S., Ferreira, P., FitzHugh, W., Gage, D., Galagan, J., Gardyns, S., Ginde, S., Goyette, M., Graham, L., Grand-Pierre, N., Hagos, B., Heaford, A., Horton, L., Hulme, W., Iliev, I., Johnson, R., Jones, C., Karatas, A., LaRocque, K., Lamazares, R., Landers, T., Jones, C., Karatas, A., LaRocque, K., Lamazares, R., Landers, T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
1 (bases 1 to 172939)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo
                                                                                                                                                                                                                                                                                                                                                              Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens chromosome 11, clone RP11-113D6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Birren, B., Nusbaum, C. and Lander, E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AC090099
AC090099.14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (bases 1 to 172939)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      172939 bp DNA linear PRI 01-OCT-2002 chromosome 11, clone RP11-113D6, complete sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GI:23396332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Brown, A.,
```

```
Karatas, A., Kells, C., Landers, T., Levine, R., Lindblad-Toh, K., Liu, G., MacLean, C., Macdonald, P., Major, J., Matthews, C., McCarthy, M., Meldrim, J., Meneus, L., Mihova, T., Mlenga, V., Murphy, T., Naylor, J., Nguyen, C., Nicol, R., Norbu, C., Norman, C.H., O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Peterson, K., Phunkhang, P., Pierre, N., Raymond, C., Retta, R., Rise, C., Rogov, P., Roman, J., Roy, A., Schauer, S., Schuer, S., Sewery, P., Smith, C., Spencer, B., Stange-Thomann, N., Stojanovic, N., Talamas, J., Tesfaye, S., Theodore, J., Topham, K., Travers, M., Vassiliev, H., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Young, G., Zainoun, J., Zembek, L., Zimmer, A. and Zody, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Direct Submission
Submitted (01-OCT-2002) Whitehead Institute/MIT Center for Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Horton,L., Hulme,W., Iliev,I., Johnson,R., Jones,C., Kamat,A.
Karatas,A., Kells,C., Landers,T., Levine,R., Lindblad Toh,K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Center clone name: 113_D_6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Center project name: L12764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact: sequence submissions@genome.wi.mit.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Web site: http://www-seg.wi.mit.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Center code: WIBR
                                                                                                                                                                                                                                                                                                           /rpt_family= JC
complement (4009. .4170)
/rpt_family="MIR"
/rpt_family="MIR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   complement(879..1057)
/rpt family="L1M4"
complement(1395..1513)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   complement (154. .680)
/rpt family="Charliel"
complement (678. .810)
/rpt family="Charliel"
/rpt family="Charliel"
                                                  complement (9265. .
                                                                                                                                                            complement (7175. .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  complement(1. .77)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 clone_lib="RPCI-11 Human Male BAC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       organism="Homo sapiens"
|mol_type="genomic DNA"
                                                                                                                                                                                                                                                                                                                                                                                             note="<30 qual SNGL region"
                                                                                                                                                                                                                                                                                                                                                                                                                  note="<30 qual SNGL region"
902. .1910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      clone="RP11-113D6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     chromosome="11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mol_type="genomic DN
db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .172939
                                                                                                                                                                                             family="LTR41"
                                                                                                    lement (8308. .8
_family="AluJb"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  _family="FLAM_A"
                                                                                                                                                                                                                                                                                   lement (4210. .4355)
family="MERSB"
                  family="L1PB3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              family="Alus"
                                                                 family="MLT2B1"
                                                                                                                                                                       family="MLT1C"
family="MER34"
                                                                                                                                       family="LTR41"
                                                                                                                                                                                                                                                  family="AluSx"
                                                                                                                                                                                                                                                                                                                                                                                . 2788
                                                                                                                         ,8611)
                                                                                                                                                          .7359)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Kamat, A.,
                  밁
                                                δ
                                                                                     밁
                                                                                                                                                          Query Match
Best Local Similarity
Matches 2137; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                  unsure
                                                                                                                                                                                                                                                   unsure
                                                                                                                                                                                                                                                                                     unsure
                                                                                                                                                                                                                                                                                                                        unsure
                                                                                                                                                                                                                                                                                                                                                            unsure
                                                                                                                                                                                                                                                                                                                                                                                               unsure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           unsure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     unsure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          unsure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                       114002
                                     GAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC 581
                    GAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC 113883
                                                                                       TCCAGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA 113943
                                                                                                             TCATGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA 521
                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /rpt family="LIME3"
complement(17827. .170^^^
/rpt fam')
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              complement (16607...16612)
/note="<30 qual SNGL regi
complement (16746...17360)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="<30 qual SNGL region"
complement (21118. .21398)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /rpt_family="LTR48B"
complement(11344. .11683)
/rpt_family="L2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                complement (20684.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20320. .20609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /rpt_family="MER5A"
complement(16587..16598)
/note="<30 qual SNGL region"</pre>
                                                                                                                                                                                                                                 /note="<30 qual SNGL region"
                                                                                                                                                                                                                                                  note="probably T; possibly C"
21160. .21167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       note="<30 qual SNGL region"
20879. .20883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 jdr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19933. .19941
'note="<30 qual $NGL region"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'n,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2188. .12660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  걸
                                                                                                                                                                                                                                                                                                        note="<30 qual SNGL region"
                                                                                                                                                                                                                                                                                                                                                                                                            note="<30 qual SNGL region"
                                                                                                                                                                                                                                                                                                                      note="probably A; possibly G"
1153 .21158
                                                                                                                                                                                                                                                                                                                                                                            e="probably A; possibly G"
                                                                                                                                                                             81.3%;
99.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             family="AluSx"
. 20771
                                                                                                                                                                                                                                                                                                                                                                                                                                    family="AluSx"
. . . 21147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               family="AluJo"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  family="L2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     family="AluJo"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            family="MIR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  _family="AluJo"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  family="L1MC4a"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     family="AluSx"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        _family="L1MC4a"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          family="L1MA2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           family="L1MC4a"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               family="AluJo"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               family="L1ME3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              family="(GAAA)n"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .19821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .15108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .13817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .13522
                                                                                                                                                            0;
                                                                                                                                                          Score 2128.6;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 region"
                                                                                                                                                                                               DB 9;
                                                                                                                                                              14;
                                                                                                                                                              Indels
                                                                                                                                                                                               Length 172939;
                                                                                                                                                              0; Gaps
                                                                                                                                                              0
```

FEATURES

source

repeat\_region repeat\_region repeat\_region repeat\_region repeat\_region repeat\_region

repeat\_region

repeat\_region repeat\_region repeat\_region

repeat\_region

unsure repeat\_region repeat\_region repeat\_region repeat\_region repeat\_region COMMENT TITLE JOURNAL

1122 CTGACCAGGCTGTACGTGACCATCCTCCCAGAGTTCTCTGGATCCCGAAAGTCTTCCCGAACGTGTACCCGTGACCATCCTCCCCGAAGATCCTCCCGAAAGTCTTCCCGGAAGATCCTCCCGAAGATCCTCCCCGAAGATCCTCCCCGAAGATCCTCCCCGAAGATCCTCCCCGAAGATCCTCCCCGAAGATCCTCCCCGAAGATCCTCCCCGAAGATCCTCCTCCTGTGCCCTG 113283  11342 CTGACCAGGCTGTACGTGACCATCCTCCTCCAGGATCCAACTCTGTTCCTCCTCTGTGCCCTG 113283  11322 CCCTTTGGCATTCAGTTGCGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATT 1241  113222 CCCTTTGGCATTCAGTTGCGCCCTTTTCCAGGATCCACCCCAGATCCAACCCCATC 1301  113222 TGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCCATC 13163  11322 TGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTAAAATAGGCAAGACCTGAAGCTCTATTT 113223  11322 TGTCATGTGCATCTCTTCGTGGGCTCCTTTAGGCAGGTGCAAAAATAGGCAAAACCTGAAGCTGTATTT 113103  11322 TGTCATGTGCATCTCTTCGTGGGCTCCTTTAGGCAGGTGCAAAAATAGGCAAAACCTGAAGCTGGTT 1361  11312 ATTTACTTCTTCTTCGTGGGCTCCTTTAGGCAGGTGCAAAAATAGGCAAAACCTGAAGCTGGTT 113103  11362 CTCCAAAGGGCTCTTGGAGACACCCCTTAAGGCAGGTGGAAGAACCTCGAAGCTGGTTT 113103  11362 CTCCAAAGGGCTCTTGGAGGAACACCCCTTAAGGTGGAAGAAACCTCTGAAGCTTGCTCAAGTTGAAGCAGAACCTCTGAAGCTGCATCTAAATTAGGCAAGAAACCTCTGCCCTGCAAGTTTCCTAAGTTAGTATCTTATCTTA 1541  113102 CAAAACCCCTGGAAGCCAGATTGGAGCAGATTGGAGCAGGAAGAACCTCTGCCCTGCAAGTTTTCTTA 1541  112922 GAAACCCCTGGAAGCAAATGCTGCCCTGCACCCTTGAAGAAACCTCTGCCCTTGCATTTTTCTTA 1541  112923 GACAGGACTTTGAAGAGCAAATGCTTGCACCTTGAAGAAACCTCTGCAATTATATATCCATTTTTCTTA 112923  1542 GAAACCCTGAAGATGCTTCAGTGCCCTGCACCCTTGAAGAAACATTATATATA	S82 ACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGGTTGTGCTCTGG 641
SERVENCE OF OUR OWN	Q B Q B Q B Q B Q B Q B
Db 112322  Qy 2202  Db 112262  Qy 2262  Qy 2322  Qy 2322  Db 112142  Qy 2382  Db 112082  Qy 2442  Db 112082  Qy 2442  Db 111022  Qy 2562  Db 111962	112802 1722 112742 112742 112682 112682 1142 112622 112562 112562 112502 2022 112442 2082 112382
ATTIGA ATTIGA ATTIGA TCTGA TCT	TCTAG
122 TCCTGGACTAATGAACTAGTGA 22 ATTGGAAACCTCAATATTGATT 262 ATTGGAAACCTCAATATTGATT 262 ATTGGAAACCTCAATATTGATT 262 ATTGGAAACCTCAATATTGATT 262 ATTGGAAACCTCAATATTGATT 262 TCTTACAGATTCTTTCAGTTTAG 262 TCTGACTGTAACTTTCAGTTTAG 264 TCTGACCTTTCCATGACAATCT 265 TCTGACCTTTCCATGACAATCT 266 TCTGACCTTTCCATGACAATCT 266 TCTGACCTTTCCATGACAATCT 267 TCTGACCTTTCCATGACAATCT 268 TCTGACACACAAACAATATTAGG 268 TCTGAACACAGAAAAATAAATTAAGG 27 TGAACACAGAAAAATAAATTAGG 27 TGAACACAGAAAAATAAAATTAGG 27 TGAACACAGAAAAATAAATTAGG 27 TGAACACAGAAAAATAAAATTAGG 27 TGAACACAGAAAAATAAAATTAAGG 27 TGAACACAGAAAAATAAAATTAAGG 27 TGAACACAGAAAAATAAAATTAAGG 27 TGAACACAGAAAAATAAATTAAGG 27 TGAACACAGAAAATAATTAGG 27 TGAACACAGAAAAATAAATTAAGG 27 TGAACACAGAAAAATAAATTAAGG 27 TGAACACAGAAAAATAAATTAAGG 27 TGAACACAGAAAAATAAAATTAAGG 27 TGAACACAGAAAATAATAAATTAGG 27 TGAACACAGAAAATAATTAGGAATTTAGGAATTAGGAATTAGGAATATTAGGAATTAGGAATATTAGGAATTAGGAATATTAGG	CRCTTTTTCTGCACTATACCATTACCCTGTTATCCCTGTAATCCTGAATCTTTCCTAAAACCGTAAAACCTTTTCCTACTAAAACCATTTTCCCTACTAAAACCATTTTCCTACTA
NIGARCIAGIGAGGCIA	TCATTGTAY TCATTGTAY TCATTGTAY TCATTGTAY TCATTGTAY TCATTGTAY TACCTGATAY AATCATGTTY AATCATGTTY AATCATGTTY AATCATGTTY AATCATGTTY AATCATGTTY TTCGTGAGAGAGAG
AGTGGAAATT AGTGGAAATT AGTGGAAATT AGTGGAAATT AAATTCTTCAI AAATTCTTCAI AAATTCTTCAI AAATTCTTCAI ATTGGTATCT ATTGGTATCT ATTGGAACCTGTTT ATTGAACCTGTTCI ATTGAACCTGTGCT ATTGAACCTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGC	CCCTTGAGG  ATTOTCCACAGG  THICK IN
PATCTTGAAA	
ATTIGGAAACCTCAATATTGATTTAAAGTGGAAATTATCTCACACCACTTTATTATTCT ATTIGGAAACCTCAATATTGATTTAAAGTGGAAATTATCTTGAAAACCATTTATTATTCAT ATTIGGAAACCTCAATATTGATTTAAAGTGGAAATTATCTTGAAAACCATTTATTATTCAT ATTIGGAAACCTCAATATTGATTTAAAGTGGAAATTATCTTCAAAACCATTTATTATTCT ATTIGGAAACCTCAATATTGATTTAAAGTGGAAATTATCTTCAAAACCATTTATTATTCT ATTIGGAAACCTCAATATTGATTTAAAGTGGAAATTATCTTCAAGATTCTTCAAGTTGTATAAATTGT TCTGATTGTAACTTTCAGTTAGTATTATAGGAGAATTCTTCAATACTTCCAGGTTTTGTATAAATTGT TCTGATTGTAACTTTCAGTTAGTTTTATGGCTGTTTACATGAGAAACCAAAACCAAAAACC TCTGATTGTAACTTTCAGTTAGTTTTATGGCTGTTTACATGAGAAACCAAAACCAAAAACCA TCTGATTGTAACTTTCAGTTAGTTTTATGGCTGTTTACATGAGAAACCAAAACTGAAAACA 1120 TCTGATCTTTCAGTTAGTTTTATTGGTATCTGGATAAATAA	HILL AGT
17 8 2 3-3 3-3 3-3 3-3 3-3 3-3 3-3 3-3 3-3 3	 

8 밁 δ

밁 8 片 5 밁 ঠ 밁 ð

유

ð

밁

ð 밁 S В S 문 5 片 δ 밁

밁

2020568	
ocus	AC020568 192618 bp DNA linear HTG 17-AUG-2000
<b>SFINITION</b>	Homo sapiens chromosome 20 clone RP11-206C1, WORKING DRAFT
	SEQUENCE, 24 unordered pieces.
CESSION	AC020568
SRSION	AC020568.4 GI:9280789
SYWORDS	HTG; HTGS_PHASE1; HTGS_DRAFT.
DURCE	Homo sapiens (human)
:	

ર્ફ 문 S 밁 S 밁

밁 ક 문

```
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
Eukaryota; Me
Mammalia; Eut
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequencing vector: M13; 93*
Sequencing vector: plasmid; 7*
Chemistry: Dye-primer ET; 93* of reads
Chemistry: Dye-terminator Big Dye; 7* of reads
Assembly program: Phrap; version 0.990319
Consensus quality: 179082 bases at least Q40
Consensus quality: 183120 bases at least Q30
Consensus quality: 185448 bases at least Q20
Consensus quality: 185448 bases at least Q20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             용용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Direct Submission
Submitted (04-JAN-2000) Genome Sequencing Center, Washington
University School of Medicine, 4444 Forest Park Parkway, St.
MO 63108, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Insert size: 205000; agarose-fp
Insert size: 190318; sum-of-contigs
Quality coverage: 3.99 in Q20 bases; agarose-fp
Quality coverage: 4.34 in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Center project name: H_NH0206C01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Center: Washington University Genome Sequencing Center Center code: WUGSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 (bases 1 to 192618)
Waterston, R.H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Web site:http://genome.wustl.edu/gsc/index.shtml
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The sequence of Homo sapiens clone Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 (bases 1 to 192618)
Waterston, R.H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NOTE: This is a 'working draft' sequence. It currently consists of 24 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Jul 19,
                                         28402
35970
36070
42474
42574
49753
                                                                                                                                                                                     17977
21535
21635
                                                                                                                                                     24616
24716
                                                                                                                                                                                                                                                                                                  10197
11939
                                                                                                                                                                                                                                                     14809
                                                                                                                                                                                                                                                                                                                                                                                                             1280
1380
3545
3645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000 this sequence version replaced gi:9211362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Genome Center -----
                                                                                                                                                                                                                                                                 gap of unknown contig of 26
                                                                                                                                                                                                                                                                                                                                                                             e contig of 1797 gap of unknown contig of 2880
                                                                                                                                                                                                                                                                                                                                                                                                                            gap of unknown contig of 2165 gap of unknown
                                                                                    gap of contig gap of contig
                                                                                                                                                     gap of contig
                                                                                                                                                                                     gap of contig
                                                                                                                                                                                                                 gap of contig
                                                                                                                                                                                                                                                gap of contig
                                                                                                                                                                                                                                                                                                                                               gap of contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                             contig of 1279 bp in length gap of unknown length
                                                                                                                                                                                                                                                                                                                             gap of
                                                                                                                                                                                                                                                                                                                             of 1575
unknown
                        unknown
of 7752
                                                      unknown
of 7179
                                                                                                     of 7568
unknown
                                                                                                                                                                                                                                                  of 3068
                                                                                                                                                                                                                                                                                                                                                                unknown
                                                                                                                                    unknown
                                                                                                                                                                    unknown
                                                                                                                                                                                      of 2981
                                                                                                                                                                                                    unknown
                                                                                                                                                                                                                  of 3558
                                                                                      of 6404
                                                                                                                                                       of 3586
length

104 bp in leng

107 van length

1179 bp in length

108 in length

109 in length

109 in length

109 in length

109 in length
                                                                                                                                                  bp in length
length
bp in length
                                                                                                                                                                         length
in length
                                                                                                                                                                                                                                                                                                                                  length
in length
                                                                                                                                                                                                                  length
bp in
                                                                                                                    length
bp in length
                                                                                                                                                                                                                                                                                length
bp in
                                                                                                                                                                                                                                                                                                                length
bp in
                                                                                                                                                                                                                                                                                                                                                                                bp in
                                                                                                                                                                                                                                                                                                                                                                                                              nı da
                                                                                                                                                                                                                                                                                                                                                                                                                                            bp in length
                                                                                                                                                                                                                                                  ni qd
                                                                                                                                                                                                                                                                                                                                                                                            length
                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                   length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        accession number will
                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                                                                              length
                                                                                                                                                                                                                                                                                                                                                                             length
                                                                                                                                                                                                                                                                                                                                                                                                           length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Louis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                      misc_feature
                                                                     misc_feature
                                                                                                                                    misc_feature
                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                               misc_feature
                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                            misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                source
                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            124386
138609
138709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            109341
                                                                                                                                                                                                                                                                                                                                                                                                         /note="assembly_name:Contig30"
28402. .35969
/note="assembly_name:Contig31
                                         /note="assembly_name:Contig41"
153983. .169994
                                                                       /note="assembly_name:Contig40"
138709. .153882
                                                                                                        /note="assembly_name:Contig38"
109341. .124285
/note="assembly_name:Contig39"
124386. .138608
                                                                                                                                                                       92244. .109240
                                                                                                                                                                                                                                   /note="assembly_name:Contig35"
67189. .77656
                                                                                                                                                                                                                                                                                                 /note="assembly_name:Contig33"
49853. .57604
                                                                                                                                                                                                                                                                                                                                                                        vector_side:left"
                                                                                                                                                                                                                                                                                                                                                                                                 clone_end:SP6
           /note="assembly_name:Contig42"
170095. .192618
                                                                                                                                                                                                                                                                                                                                   42574. .49752
                                                                                                                                                                                                                                                                                                                                            /note="assembly_name:Contig32"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="assembly_name:Contig26"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /mol_type="genomic DN
/db_xref="taxon:9606"
/chromosome="20"
                                                                                                                                                                                 /note="assembly_name:Contig37"
                                                                                                                                                                                                               note="assembly_name:Contig36"
                                                                                                                                                                                                                                                                             /note="assembly_name:Contig34"
                                                                                                                                                                                                                                                                                                                                                                                                                                                             21635. .24615
/note="assembly_name:Contig29"
24716. .28301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      note="assembly_name:Contig28"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          note="assembly_name:Contig27"
17977. .21534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         note="assembly_name:Contig25"
12039. .14708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10197. .11938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="assembly_name:Contig22"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  note="assembly_name:Contig21"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note="assembly_name:Contig19"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  'clone="RP11-206C1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   organism="Homo sapiens"
|mol_type="genomic DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     note="assembly_name:Contig24"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  note="assembly_name:Contig23"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .10096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .17876
                                                                                                                                                                                                                                                                      .67088
                                                                                                                                                                                                                                                                                                                                                                   .42473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10: gap of unknown length is: contig of 14945 bp in 1 5: gap of unknown length 8: contig of 14223 bp in 1 8: gap of unknown length 2: contig of 15174 bp in 10; gap of unknown length 10; gap of unknown length 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gap of unknown leng
contig of 22524 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gap of unknown length contig of 16012 bp in gap of unknown length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ig of 14387 bp in length
of unknown length
ig of 16997 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         unknown length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of 10468 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of 9384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             length
```

158239 2378 158299 2438	1238 ATTITIGICATCTAGTITICCATTTTCCTCTCGCTCTAACAGCAGTGCCAACCC 1297	1238 ATTTTGTCATGTGCATCTACATTTCCATTTACAGCAGTGCCAACCC 1297	Oy 2318	1237 Qy 2258 1237 Db 158179	158119	158059	2078 157999	157939	1958 157879	157819	157759	157699	157639	157579	157519	157459	157399	157339
TACAGAATTCTGATACATGCTGTGACATACATGAACCTGGAAATATTGTGCTAAGGAAAA TAAGCCAGACGCCAAACAATATTGTAAGTTCAAATTCTATGAGGTATCCAAATTAGGAAA 	TACAGAATTCTGATACATGCTGTGACATACATGAACCTGGAAATATTGTGCTAAGGAAAA	AACATCTGACCTTTCCATGACAATCTCAATTATGGTATCTGGATAATACTTACAGTTGG	TIGITCTGATTGTAACTTTCACTTAGTTTTATGGCTGTTTACATCAGAAGCAAAACTGAA	TTCACTTACAGATTCTTTCAGTTGTAGGAGAATTCTTCATACTTCCAGGCTTTTGTATAAA TTCACTTACAGATTCTTCAGTTGTAGGAGAATTCTTCATACTTCCAGGCTTTTGTATAAA TTCACTTACAGATTCTTCAGTTGTAGGAGAATTCTTCATACTTCCAGGCTTTTGTATAAA	GGCCATTGGAAACCTCAATATTGATTTTAAAGTGGAAATTATCTTGAAAACCATTTATTA 	CTCTTCCTGGACTAATGAACTAGTGAGGAGCCTATAAATATGTCCCACCAGTTTCATTTT	GGTTTCTAGTAAAGACAATCGTGGCCCCTTCCCCTTGAGAACTGGTAAGTTCTTATTTAG	TIGGTTTANGAATAGCCCTCTCCTGTCATTTGTCCACAGCATGGTGACATGTTGGCCTTTTGTGTTTANGAATAGCCCTCTCCTGTCATTTGTCCACAGCATGGTGACATGTTGGCCTT	TATAAAGCAAAATAATGACCTTAGAGAGGATTCTCCCTTCATAAAAACAGTCTTAGAAA	TOGANGC LCARI LCLI PARI MAGINAGE CAGE LCLI CAGE LCCAT LCCARI LCLI CAGE LCL	GTCAGACTATGTTCCCCTGAAAATCATGTTCCCTTTTATGACTGGAGGCATTACTGCAGT 	CTCTTCTTTATACTTGTTTCCTACCTGATAGTATCAAAAAAGGAAGATTCCTTATTAATCT	TGAGCACTITITCIGCACTITICATIGTAATAAAGGAGTTGCTGTCCACAACCCTAAAA 	SWALL COLLING AND		TITAGCCTTGACAGTTGCAGTTTTCACCCATGGAAAGTCTTTAACGTCTGACAGTACAATGTTTTA	SI LAMBICANGROI I IGNOROGANI IGLI SUCCESSO COLLO IL	TCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCT

Boukhgalter, B., Anderson, S.,

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AC107948/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /ERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM
                                                                          TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
                                       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    158479
                                                                                                                                                                                                                                                                                                                         E 3 (bases 1 to 156839)

Shirren, B., Linton, L., Nusbaum, C., Lander, E., Ali, A., Allen, N., Anderson, S., Barma, N., Bastien, V., Bloom, T., Boguslavkiy, L., Anderson, S., Barma, N., Bastien, V., Bloom, T., Boguslavkiy, L., Anderson, S., Barma, N., Bastien, V., Bloom, T., Boguslavkiy, L., Anderson, S., Barma, N., Bastien, V., Bloom, T., Boguslavkiy, L., Chargari, S., Barma, A., Chang, J., Campoplano, A., Chang, J., Chargari, Collymore, A., Cooke, B., Choepel, Y., Colangelo, M., Collins, S., Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Cooke, P., DeArellano, K., Dewar, K., Gage, D., FitzGerald, M., FitzHugh, W., Gage, D., Faror, S., Ferreira, P., FitzGerald, M., FitzHugh, W., Gage, D., Gard, S., Goyette, M., Graham, L., Galagan, J., Gardyna, S., Ginde, S., Gord, S., Goyette, M., Graham, L., Grand-Pierre, N., Johnson, R., Jones, C., Kamat, A., Karatas, A., Kells, C., Lakocque, K., Liu, G., MacLean, C., Macdonald, P., Major, J., Marquis, N., Liu, G., MacLean, C., Macdonald, P., Major, J., Marquis, N., Matthews, C., McCarthy, M., McEwan, P., McKernan, K., Meldrim, J., Marthews, C., McCarthy, M., McEwan, P., McKernan, K., Meldrim, J., Norbu, C., Morman, C.H., O'Connor, T., O'Donnell, P., Nicol, R., Norbu, C., Retta, R., Rieback, M., Riley, R., Rise, C., Poccar, P., Poccar, J., Report, M., Santte, R., Schauer, S., Chauer, S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Choepel, Y., Collangelo, M., Collims, S., Collymore, A., Cook, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Faro, S., Ferreira, P., FitzHugh, W., Gage, D., Galagan, J., Gardyna, S., Ginde, S., Gord, S., Goyette, M., Graham, L., Grand-Pierre, N., Hagos, B., Horton, L., Hulme, W., Iliev, I., Johnson, R., Jones, C., Kamat, A., Karatas, A., Kells, C., LaRocque, K., Lamzares, R., Landers, T., Leboczky, J., Levine, R., Liu, G., MacLean, C., Macdonald, P., Major, J., Marquis, N., Matthews, C., McCarthy, M., McEwan, P., McKernan, K., Mellerim, J., Meneus, L., Mihova, T., Mlenga, V., Murphy, T., Naylor, J., Nguyen, C., Nicol, R., Norbu, C., Norman, C.H., O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Petterson, K., Phunkhang, P., Pierre, N., Pollara, V., Raymond, C., Retta, R., Rieback, M., Riley, R., Rise, C., Rogov, P., Roman, J., Rosetti, M., Roy, A., Santos, R., Schauer, S., Schupback, R., Seerry, P., Spencer, B., Stange-Thomann, N., Stojanovic, N., Serauss, M., Subramanian, A., Talamas, J., Tesfaye, S., Theodore, J., Viel, R., Vo, A., Wilson, B., M., X., Wyman, D., Ye, W.J., Young, G., Schupit, M., Carter, For Genome Submitsed (Jaine), Mhitchead Toetitute (MTT Center for Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Birren,B., Linton,L., Nusbaum,C., Lander,E., Ali,A., Allen,N., Anderson,S., Barna,N., Bastien,V., Boguslavkiy,L., Boukhgalter,B., Anderson,S., Camarata,J., Campopiano,A., Chang,J., Chazaro,B., Choepel,Y., Colangelo,W., Collins,S., Colymore,A., Cook,A.
                                                                                                 Rogov, P., Roman, J., Rosetti, M., Roy, A., Santos, R., Schauer, S., Schupback, R., Seaman, S., Severy, P., Spencer, B., Stange-Thomann, N., Stojanovic, N., Strauss, N., Subramanian, A., Talamas, T., Tesfaye, S., Theodore, J., Topham, K., Travers, M., Travis, N., Trigilio, J., Vassiliev, H., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Ye, W.J., Young, G., Zainoun, J., Zembek, L., Zimmer, A. and Zody, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mammalia, Eutheria, Primates, Catarrhini, Ho
1 (bases 1 to 156839)
Birren,B., Nusbaum,C. and Lander,E.
Homo sapiens chromosome 11, clone RP11-81D23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens chromosome
AC107948
Submitted (26-JUN-2002) Whitehead Institute/MIT Center Research, 320 Charles Street, Cambridge, MA 02141, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Research,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (24-JAN-2002) Whitehead Institute/MIT Center for Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AC107948.7 GI:21909529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCTTGAACACAGAAATAAATTAGGAGGATCCTGGTGCTGGAAGATGGAGAGAA 158533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (bases 1 to 156839)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sapiens (human)
                                                                              Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            320 Charles Street, Cambridge, MA 02141,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           156839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11, clone RP11-81D23, complete sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRI 19-JUL-2002
                                           for Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            repeat_region
   repeat_region
                                                                          repeat_region
                                                                                                                                                 repeat_region
                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cook, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Farreira, P., FitzGerald, M., Gage, D., Galagan, J., Gardyna, S., Gord, S., Graham, L., Grand-Pierre, N., Hagos, B., Horton, L., Hulme, W., Iliev, I., Johnson, R., Jones, C., Kamat, A., Karatas, A., Kells, C., Landers, T., Levine, R., Lindblad, Toh, K., Liu, G., MacLean, C., Macdonald, P., Major, J., Matthews, C., McCarthy, M., Meldrim, J., Meneus, L., Mihova, T., Mlenga, V., McCarthy, M., Meldrim, J., Meneus, L., Mihova, T., Mlenga, V., Murphy, T., Naylor, J., Wonylen, C., Nicol, R., Norbu, C., Norman, C.H., O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Peterson, K., Phunkhang, P., Pierre, N., Raymond, C., Retta, R., Rise, C., Rogov, P., Roman, J., Roy, A., Schauer, S., Schupback, R., Seaman, S., Severy, P., Smith, C., Spencer, B., Stange-Thomann, N., Tavers, M., Vassiliev, H., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Young, G., Zainoun, J., Petenbek, L., Zimmer, A. and Zody, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (19-JUL-2002) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA On Jul 19, 2002 this sequence version replaced gi:21307060. All repeats were identified using RepeatMasker: Smit, A.F.A. & Green, P. (1996-1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Birren, B., Nusbaum, C., Lander, E., Ali, A., Allen, N., Anderson, Barna, N., Bastien, V., Bloom, T., Boguslavkiy, L., Boukhgalter, Camarata, J., Chang, J., Chazaro, B., Choepel, Y., Collymore, A., Cook, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, Faro, S., Ferreira, P., FitzGerald, M., Gage, D., Galagan, J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             http://ftp.genome.washington.edu/RM/RepeatMasker.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (bases 1 to 156839)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Web site: http://www-seq.wi.mit.edu
Contact: sequence submissions@genome.wi.mit.edu
------ Project Information
Center project name: L24483
Center clone name: 81_D_23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Center code: WIBR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Center: Whitehead Institute/ MIT Center for Genome Research
                                                                                                                                                                                                                               /rpt_family="Alusq"
5900. .6027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     complement(484..779)
/rpt family="Alusx"
complement(794..1094)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /clone="RP11-81D23"
/clone_lib="RPCI-11 Human Male BAC"
complement(1...80)
   /rpt_family="L2"
7738. .7826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /rpt_family="AluSq"
2346. .2384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       complement(1711. .1939)
/rpt_family="MIR"
                                                                              /rpt_family="(CCCG)n"
7387. .7502
                                                                                                                                                                                                                                                                                                                                                                                                                                                              /rpt_family="AluSq"
complement(2791. .3)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   complement (2245.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   complement (1100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
/chromosome="11"
                                                                                                                                                                                    'rpt_family="FRAM"
                                                                                                                                                                                                                                                                                                                                     'rpt_family="L2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            _family="AluSg"
                                                                                                                                                                                                                                                                                                                                                                                                                   _family="AluSx"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  family="AluSx"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           family="L2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 family="AluJo"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .2344)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       . 1396)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3083)
```

UT (	TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG 585	Qy 526 TGACACC
CONTROL CONTROL OF C	GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC	Qy 466 GGGTCAN        Db 156085 GGGGCAC
	70.4%; Score 1842.8; DB 9; Length 156839; 92.2%; Pred. No. 0; vative 0; Mismatches 157; Indels 10; Gaps 4;	Query Match Best Local Similarity Matches 1987; Conser
155125 GCCTIGGAGCTGTCGGGAAAGCAGATTGGGCCTGCCCTTGACAATGAGGCATTTTTTTT	/rpc ramily="(1)n"	repeat_region
26 CCCTGGAGCTGTCGGGAAGCAAGTGAGGAAGAACCTCTGCCCTGTCA	· 5	repeat_region
	.20461)	repeat_region repeat_region
66	, 19962)	repeat_region
1306 ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC 1365	/rpt family="MER81"  Oy  Complement(1930319604)  /rpt family="AluJb"  Db	
		repeat_region
46 ATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTT	Tement (15814. 7.16103) family="LTR23"	repeat_region
1186 TTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTC 1245	/rpt_family="Alusc"	
25 CCAGGCTGTATGTGACCATCCTGCTCACAGTGCTGGTCTTCCTCCTCTGCGGCCTGCCCT		repeat_region
26 CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCT		repeat_region
1066 GIGGGTCCAGCCIGGTCCIGCTGGTCAGGAFITCTGTGGAFICCCGGAAAGAFIGCCGCTGA 1125		
45 GGTGTGAAACGTCAGATTTCATCCCAGTCGCGTGGCTGATTTTTTATGTGTGGTTCTCT	lement (1430514325)  temilt (1430514325)  temilt (1430514325)  temilt (1430514325)	repeat_region
8		repeat_region
946 TGCGAGTANCCTGGAGTGGACTGGACTGGACTCCTGTTTAGTGGTGGTGATTCTGTTT 1005	/rpt tamily="15R48"	repeat_region
65 GCCGCCGCCCCACACACCTGTCAGCGGTCGTGTGTGTCCTGCTCTGGGGCCTGTCCCTGC	8B" - 13680)	
GCCGCCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGC	/rpc_family="Aluvo"	
25 TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCTGTTGGCCCATCTGGTACCGCT	Complement()-01	repeat_region
155785 ATCTCATCCGCAAAATCCTCGTTTCTGTGATGACCTTTCCCTACTTACAGGCCTGAGTA 155726	h a	
66 ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCA	/rpt family="LTR56"	repeat region
		repeat_region
06 ACTICCICITCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCC	.11767 amily="LTR56"	repeat_region
646 TGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGCGC 705	/rpt_family="(TG)n"	repeat_region
65 TGCTGACGTGCATCATTTCCCTTGTCGGACTGACAGGAAACGCGGTTGTGCTCTGGCTCC	/rpt family="L3" Db	repeat_region
586 GGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTTGGCTCC 645	Complement (storsz/s) /rpt_family="LIMC4"  83799017	repeat region
156025 TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG 155966	/rpt family="MIR" Db	rossat rosson

RESULT 6 AC023078/c LOCUS AC023078 AC023078 DEFINITION Homo sapiens chromosome 11, clone RP11-583F24, complete sequence. ACCESSION AC023078 VERSION AC023078.9 GI:20198710 KEYWORDS HTG.	Qy         2502         CCAGACGCA	Qy         2382         TCTGACCTTTCCATGAATCTTCATTATTGGTATCTGGATAATAACTTACAGTTGCTACA           Qy         [	Qy 2262 CITACAGATTCTTCAGTTGTAGAGATTCTTCATACTTCCAGGTTTTCTATAATTGT	Qy         2142         TCCTGGACTAATGAACTAGTCAGGAGCCTATAAATATGTCCCACCAGTTTCATTTTGGCC           Qy	Db 154525 TITTATGAATAGCCCTTCCCTTTGAGAACTGGTAAGTGCTTATTTAGCTCT  Qy 2082 TCTAGTAAAGACAATCGTGGCCCCTTCCCCTTGAGAACTGGTAAGTGCTTATTTAGCTCT  Db 15466 TCTAGTAAAGACAATCGTGGCCCCTTCCCCTTGAGAACTGGTAAGTGCTTATTTAGCTCT  Db 154466 TCTAGTAAAGACAATCGTGGCCCCTTCCCCTTGAGAACTGGTAAGTGCTTATTTAGCTCT	1902 154645 1962 154585	Qy 1662 TCTCCTTGATATTACCAATACATTTTCCCTGTTATCTTGCACTGAATCTTTCCTACTGAA  Db 154885 TCTCCTTGATATTACCAATACATTTTCCCTGTTATCTTGCACTGAATCTTTCCTACTGAA  Qy 1722 CACTTTTTCTGCACTTTCATTGTAATAAAAGAAGTTCCTGCACACACCCTAAAACTCT  Db 154825 CACTTTTTCTGCACTTTTCATTGTAATAAAAGGAGTTCCTGTCCACACACCCTAAAACTCT  Qy 1782 TCTTTATACTTGTTTCCCTACCTGATAGTATCAAAAAGGAAGATTCCTTATTAATCTGTCA  Db 154765 TCTTTATACTTGTTTCCTACTGATAGTATCAAAAAGGAAGATTCCTTATTAATCTGTCA  Qy 1842 GACTATGTTCCCCTGAAAATCATGTTCCCTTTTTTATGACTGGAGGCATTACTGCAGTTGGA  Db 154765 TCTTTATACTTGTTTCCCTACTGATATCTTAATCTGCAGTTGGA  Qy 1842 GACTATGTTCCCCTGAAAAATCATGTTCCCTTTTATGACTGGAGGCATTACTGCAGTTGGA  GACTATGTTCCCCTGAAAAATCATGTTCCCTTCTATGACTGGAGGCATTACTGCAGTTGGA  Db 154705 GACTATGTTCCCCTGAAAAATCATGTTCCCTTCTATGACTGGAGGCATTACTGCAGTTGGA
2002	153989	4109 TITLE 01 JOURNA 4049 REFERENC	2321 154229 2381 154169	47	2081 TITLE 154467 JOURNAL 2141 REFERENCE AUTHORS 154407	26 86	SOURCE ORGANISM 1721 ORGANISM 154826 REFERENCE AUTHORS TITLERS 154766 JOURNAL REFERENCE 1841 REFERENCE 1841 AUTHORS 154706 1901 154646
Landers, T., Lebbozky, J., Levine, R., Lindblad-Toh, K., Liu, G., MacLean, C., Macdonald, P., Major, J., Marquis, N., Matthews, C., McCarthy, M., McEwan, P., McKernan, K., Meldrim, J., Meneus, L., Mihova, T., Mlenga, V., Murphy, T., Naylor, J., Nguyen, C., Nicol, R., Norbu, C., Norman, C.H., O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Peterson, K., Phunkhang, P., Pierre, N., Pollara, V., Raymond, C., Retta, R., Rieback, M., Riley, R., Rise, C., Rogov, P., Roman, J., Rosetti, M., Roy, A., Santos, R., Schauer, S., Schupback, R.,	Anderson, S., Barna, N., Bastien, V., Bloom, T., Boguslavkky, L., Boukhgalter, B., Brown, A., Camarata, J., Campopiano, A., Chang, J., Boukhgalter, B., Brown, A., Camarata, J., Campopiano, A., Chang, J., Chazaro, B., Choepel, Y., Colangelo, M., Collins, S., Collymore, A., Cook, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Faro, S., Ferreira, P., FitzHugh, W., Gage, D., Galagan, J., Gardyna, S., Ginde, S., Gord, S., Goyette, M., Graham, L., Grand-Pierre, N., Hagos, B., Horton, L., Hulme, W., Iliev, I., Johnson, R., Jones, C., Kamat, A., Karatas, A., Kells, C., LaRocque, K., Lamazares, R.,	Topham, K., Travers, M., Travis, N., Trigillo, J., Vassillev, H., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Ye, W.J., Young, G., Zainoun, J., Zembek, L., Zimmer, A. and Zody, M.  Direct Submission  Direct Submission  Submitted (19-APR-2002) Whitehead Institute/MIT Center for Genome Submitted (19-APR-2002) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA  4 (Dases 1 to 163718)  Birren, B., Linton, L., Nusbaum, C., Lander, E., Ali, A., Allen, N.,	McCarthy, M., McEwan, P., McKernan, K., Meldrim, J., Meneus, L., Mihova, T., Mlenga, V., Murphy, T., Naylor, J., Nguyen, C., Nicol, R., Norbu, C., Norman, C.H., O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Peterson, K., Phunkhang, P., Pierre, N., Pollara, V., Oliver, J., Peterson, K., Phunkhang, P., Pierre, N., Pollara, V., Raymond, C., Retta, R., Rieback, M., Riley, R., Rise, C., Rogov, P., Roman, J., Rosetti, M., Roy, A., Santos, R., Schauer, S., Schupback, R., Seaman, S., Severy, P., Spencer, B., Stange-Thomann, N., Stojanovic, N., Strauss, N., Subramanian, A., Talamas, J., Teefaye, S., Theodore, J.,	Chazaro, B., Choepel, Y., Colangelo, M., Collina, S., Collymore, A., Cook, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Faro, S., Ferreira, P., FitzHugh, W., Gage, D., Galagan, J., Gardyna, S., Ginde, S., Gord, S., Goyette, M., Graham, L., Grand-Pierre, N., Ginde, S., Gorto, L., Hulme, W., Iliev, I., Johnson, R., Jones, C., Kamat, A., Karatas, A., Kells, C., LaRocque, K., Lamazares, R., Landers, T., Lebozky, J., Levine, R., Lindblad-Toh, K., Liu, G., MacLean, C., Macdonald, P., Major, J., Marquis, N., Matthews, C.,		Landers, T., Lehoczky, J., Levine, R., Lieu, C., Liu, G., Locke, K., Macdonald, P., Marquis, N., McEwan, P., McGurk, A., McKernan, K., McPheeters, R., Meldrim, J., Meneus, L., Morrow, J., Naylor, J., Norman, C.H., O'Connot, T., O'Donnell, P., Olivar, T.M., Peterson, K., Neirre, N., Pisani, C., Pollara, V., Raymond, C., Riley, R., Rothman, D., Roy, A., Santos, R., Severy, P., Spencer, B., Stange-Thomann, N., Stojanovic, N., Subramanian, A., Talamas, J., Tesfaye, S., Theodore, J., Tirrell, A., Vassiliev, H., Viel, R., Vo, A., Wu, X., Wyman, D., Ye, W.J.,	Homo sapiens (human)  SM Homo sapiens  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  Eukaryota; Metazoa; Chordata; Catarrhini; Hominidae; Homo.  1 (bases 1 to 163718)  E 1 (bases 1 to 163718)  Birren,B., Linton,L., Nusbaum,C. and Lander,E.  Homo sapiens chromosome 11, clone RP11-583F24  L Unpublished  2 (bases 1 to 163718)  E 2 (bases 1 to 163718)  Birren,B., Linton,L., Nusbaum,C., Lander,E., Abraham,H., Allen,N.,  Anderson,S., Baldwin,J., Barna,N., Beckerly,R., Beda,F.,  Boguslavkiy,L., Boukhgalter,B., Brown,A., Burkett,G., Castle,A.,  Choepel,Y., Colangelo,M., Collins,S., Collymore,A., Cooke,P.,  DeArellano,K., Dewar,K., Domino,M., Doyle,M., Fenestor,J.,  Ferreira,P., FitzHugh,W., Forrest,C., Gage,D., Galagan,J.,  Gardyna,S., Grant,G., Hagos,B., Heaford,A., Horton,L.,  Gardyna,S., Grant,G., Ragos,B., Heaford,A., Horton,L.,  Gardyna,S., Grant,G., Ragos,B., Heaford,A., Horton,L.,  Kann,L., Karatas,A., Klein,J.,

```
FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
repeat_region
                           repeat_region
                                                                                     repeat_region
                                                                                                                       repeat_region
                                                                                                                                                   repeat_region
                                                                                                                                                                                repeat_region
                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (23-APR-2002) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA On Apr 19, 2002 this sequence version replaced gi:15706197. All repeats were identified using RepeatMasker: Smit, A.F.A. & Green, P. (1996-1997) http://ftp.genome.washington.edu/RM/RepeatMasker.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Seaman, S., Severy, P., Spencer, B., Stange-Thomann, N., Stojanovic, N., Strauss, N., Subramanian, A., Talamas, J., Tesfaye, S., Theodore, J., Topham, K., Travers, M., Travis, N., Trigilio, J., Vassiliev, H., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Ye, W.J., Young, G., Zainoun, J., Zembek, L., Zimmer, A. and Zody, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact: sequence submissions@genome.wi.mit.edu
------ Project Information
Center project name: L6254
Center clone name: 583_F_24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Web site: http://www-seq.wi.mit.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Center: Whitehead Institute/ MIT Center for Genome Center code: WIBR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /rpt_family="MIR3"
3523. .3709
                              /rpt_1
                                                                                                                                                                                                                                                                                                                                                                                                                                /rpt_family="MER2"
4460. .4977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           complement (2486. .2593) /rpt family="MIR" 3132. .3212
                                                                                                                                                                                                complement (12553. .12696)
/rpt_family="L2"
                                                                                                                                                                                                                                                            /rpt_family="AT_rich"
compTement(11072. .11270)
/rpt_family="L2"
                                                                                                                                                                                                                                                                                                                      complement(9021. .9603)
/rpt_family="L1PB1"
                                                                                                                                                                                                                                                                                                                                                                       complement (8866.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /clone_lib="RPCI-11 Human
complement(1359. .1483)
                                                            /rpt_family="AluJo"
14277. .14341
                                                                                                                        /rpt_family="(TA)n"
13817. .13965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1. .163718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rpt_family="MLT1J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /mol_type="genomic DN
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                    rpt_family="L1PA4"
                                                                                                                                                                                                                                                                                                                                                                                                                rpt_family="LTR33"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  clone="RP11-583F24"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                map="13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               chromosome="11"
                                                                                                                                                                                                                                                                                                                                      family="L1PB1"
[ement(9021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  _family="MIR"
                                                                                                          fami
               family="(TA)n"
                                            family="L1MC4a"
                                                                                                                                                                     fam
                                                                                                                                                                                                                                 family="MLT1B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           family="L2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       family="L2"
                                                                                            .14276
                                                                                                                                                        13816
                                                                                                        ly="L1MC4a"
                                                                                                                                                                     ly="L1MC4a"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Male
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Research
                         ঠ
                                                            밁
                                                                                       S
                                                                                                                                                  S
                                                                                                                                                                                   문
                                                                                                                                                                                                              S
 밁
                                                                                                                       맑
                                                                                                                                                                                                                                              뭉
                                                                                                                                                                                                                                                                                                           Matches 1949;
                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                              71387
                                                                                                                          71447
                                                                                                                                                                                   71507
                                                                                                                                                                                                                                                71567 TCCAGGGTCACCAGACTAGGGTTTCTGAGCATGGATCCAACCATCTCAACCTTGGACACA
                                                                                                                                                                                                                                                                            462
                                                                                            642
                              702
                                                                                                                                                                                                     GAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC 581
                                                                                                                                                                                                                                                              TCATGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA
                    GCCGACTTCCTCTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATC
                                                                                                                                                     ACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGG
   GCAGACTTCCTCTCAGCGGCCGCCTTATATATTCCCTGTTAAGCTTCATCAGTATC 7126
                                                            CTCCTGGGCTGCCGCATGCGCAGGAACGCCTTCTCCATCTACATCCTCAACTTGGCCGCA
                                                                                 CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
                                                                                                                        ACGGTGCTGACGTGCATCGTTTCCCTTGTCGGGCTGACAGGAAACGCAGTTGTGCTCTGG
                                                                                                                                                                                      GAACTGACACCAATCAACGGAACTGAGGAGACTCTTTGCTACAAGCAGACCTTGAGCCTC
                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /rpt family="L1PA9"
34756. .36869
                                                                                                                                                                                                                                                                                                                                                                                    /rpt_family="L1MD2"
40872. .41052
                                                                                                                                                                                                                                                                                                                                                                                                                  40350.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          complement(16453. .16536)
/rpt_family="L2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     complement (14769. .15433)
/rpt family="L2"
15192. .15199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /rpt_family="L1PA8"
complement(39165...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           complement (26150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      complement (24730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            complement (18931.
                                                                                                                                                                                                                                                                                                                                                                                                                                                39468.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15437. .16450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /rpt_family="AT_rich"
                                                                                                                                                                                                                                                                                                                                                                     rpt_family="L1MD3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            둱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      쳝
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1dr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      note="<30 qual SNGL region"
                                                                                                                                                                                                                                                                                                                       68.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   family="AluSx"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  family="MIR3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         _family="L1PA8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      _family="LTR33"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             family="L2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         _family="MIR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    _family="L2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 family="L1P"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              family="L1PA8"
                                                                                                                                                                                                                                                                                                                                                                                                                                   family="L1PA8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              fami
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    family="MER2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        family="L2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      family="L1MB4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           family="L1MD2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             family="(TGAG)n"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  family="MLT1J"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .21019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .26640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .20496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .26142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .25285
                                                                                                                                                                                                                                                                                                                                                                                                                     .40798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                39164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ly="LTR5"
                                                                                                                                                                                                                                                                                                         0; Mismatches 183;
                                                                                                                                                                                                                                                                                                                       Score 1792.2;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .24895)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .19622)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .22686)
                                                                                                                                                                                                                                                                                                                                         DB 9;
                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                       Length 163718;
                                                                                                                                                                                                                                                                                                           7;
                                                                                                                                                                                                                                                                                                         Gaps
                                 761
                                                                                            701
                                                                                                                                                        641
                                                                                                                                                                                                                                                                              521
                                                              71328
                                                                                                                                                                                                                                                71508
                                                                                                                          71388
                                                                                                                                                                                      71448
                                                                                                                                                                                                                                                                                                            4
```

REFERENCE AUTHORS TITLE JOURNAL	1782 TCTTTATACTTGTTTCCTACCTGATAGTATCAAAAAGGAAGATTCCTTATTAATCTGTCA 1841 
REFERENCE AUTHORS TITLE JOIRNAL	1722 CACTTTTTCTGCACTTTTCATTGTAATAAAAGGAGTTGCTGTCCACAAACCCCTAAAACTCT 1781                70307 CACTTTTCTGCAATTTTCTTTGTAATAAAAGGAGTTCCTGTACAAAACCCCTAAAACAC- 70249
SOURCE	1662 TCTCCTTGATATTACCAATACATTTTCCCTGTTATCTTGCACTGAATCTTTCCTACTGAA 1721 
ACCESSION VERSION KEYWORDS	1602 ACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGAT 1661 
RESULT 7 AC139482/c LOCUS DEFINITION	1542 GCCTTCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTA 1601 
Db 69	1482 GACAGGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTA 1541
0b 69	1422 GAAACCCTGGAGCYGTCGGGAAGCAGCTGAGCAGTGAGGAAGAACCTCTGCCCTGTCA 1481
Db 69	
рь 69 Qy 2	
рь 69 Qy 2	787
рь 69 Qy 2	2 CCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT 12
. pb 69	2 CTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTG
рь 69 Фу 2	CTCTGTGGGTCCAGCCTGGTCGTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCG
рь 69 Оу 2	2 GTTTGGTGTGAAACGTCAGATTTCATTACAATGCGTGGGTGG
рь 70 Qy 2	087 CTGCTGCGGAGCATCCTGGAGTGGATGTTATGTGGCTTCCTGTTCAGTGGTGCTGATTCT 7
	71147 CGCTGCCACCCCCACACACCTGTCAGCGGTGTGTGTGTGT
Db 70	882 CACTGCCGCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCC 941
J.	822 AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC 881
Qy 1	71267 CCCCATACCATCTCTAAAATCCTCTATCCTGTGATGATGTTTTCCTACTTTGCAGGCCTG 71208
	762 CGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA 821

```
Ś
                                                                       9532
                                                                                                                                                   59591
                                                                                                                                                                                                                           9651
                                                                                                                                                                                                                                                                                                         9711
                                                                                                                                                                                                                                                                                                                                           2322
                                                                                                                                                                                                                                                                                                                                                                                    59771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 70128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             70188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1842
9474
                                   2562
                                                                                                             2502
                                                                                                                                                                                       2442
                                                                                                                                                                                                                                                                   2382
                                                                                                                                                                                                                                                                                                                                                                                                                      2262
                                                                                                                                                                                                                                                                                                                                                                                                                                                            9831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GACTATGTTCCCCTGAAAATCATGTTCCCTTTTATGACTGGAGGCATTACTGCAGTTGGA
                   TGAACACAGAAAATAAATTAGGAGGATCCTGGTGCTGGA 2600
                                                                                               CCAGACGCCAAACAATATTGTAAGTTCAAATTCTATGAGGTATCCAAATTAGGAAATTCT 2561
                                                                                                                                                                         GAATTCTGATACATGCTGTGACATACATGAACCTGGAAATATTGTGCCTAAGGAAAATAAG
                                                                                                                                                                                                                                                       TCTGACCTTTCCATGACAATCTCAATTATGGTATCTGGATAATAACTTACAGTTGGTACA
                                                                                                                                                                                                                                                                                                                                 TCTGATTGTAACTTTCAGTTAGTTTTATGGCTGTTTACATGAGAAGCAAAACTGAAAACA
                                                                                                                                                                                                                                                                                                                                                                                  CTTACAGACTCTTTCAGTTGTAGAAGAATTCTTCATACTTCCAGGTTTTGTACAAATTGT
                                                                                                                                                                                                                                                                                                                                                                                                      CTTACAGATTCTTTCAGTTGTAGGAGAATTCTTCATACTTCCAGGTTTTGTATAAATTGT 2321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCCTGGACTAATGAACTAGTGAGGAGCCTATAAATATGTCCCACCAGTTTCATTTTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCTAGTAAAGACAATCGTGGCCCCTTCCCCCTTGAGAACTGGTAAGTTCTTATTTAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTTTATGAATAGCCCTCTCCTGTCATTTGTCCACAGCATGGTGACATGTTGGCCTTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGCAAAATAATGTCCTTAGAGACAGACTCTCTCTTCATAAAAACACTCTCACCTATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGCAAAATAATGACCTTAGAGAGAGATTCTCCCTTCATAAAAACAGTCTTAGAAATTGG
TGAACACAGAAATTAAATTAGGAGGATCCTGGTGCTAGA
                                                                         CCAGATACCAAAGAACA--GTAAGTTCAAATTCTACCAGGTATCCAAACTAGGAAATTCG
                                                                                                                                                     GAATTCTGATACATGCT-TGACATAGATGAACCTGGAAACATTCTGCTAAGGAAAATAAG
                                                                                                                                                                                                                               TCTGACTTTTCCATGCTAATGTCAATTATGGTATCTTGATAATAACTTACAGTTGGTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTGGAAACCTCAATATTGATTTTAAAGTGGAAATTATCTTGAAAACCATTTATTCA 2261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCCTGGACTAATGGACCAGTGAGGAGCCCATAAATGTG----CCCCAGTTCTATTTTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCTAGTAAAGACAACTGTGGCCCCTTCCCCTTGAGAACTTTTAAGTGCTTATTTAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTTTATAAAAAGTCTTCCCCCTGTCATTTGTTCACAGCATGGTGATATGTTGGCCTTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCTCGATTCTTAATAAGTGAGTTCTGCTATCTCTACATTCCATTGAATTCTCAGATACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCTCAATTCTTAATAAGTGAGTTCTGCTACCTCTAAATTCCATTGAATTCTCAGATATA 1961
                                                                                                                                                                                                                                                                                                         TCTGGCTGTAACTTTCAGTTAAATGGCCATTAACATGAGAGGCAAGACTGATAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTGGAAACCTCAATATTGGTTTCAAAGTGGAAATTATCTTGAAAACCATTTATTATTTG
69436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       70009
                                                                                                                                                                                                                                                                                                                                                 2381
                                                                                                                                                                                                                                                                                                                                                                                                                                                              69772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1901
                                                                           69475
                                                                                                                                                                                           2501
                                                                                                                                                                                                                                 69592
                                                                                                                                                                                                                                                                     2441
                                                                                                                                                                                                                                                                                                           69652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        69832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    69889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                69949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     70069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               70129
                                                                                                                                                       69533
                                                                                                                                                                                                                                                                                                                                                                                      69712
```

8

밁 S 밁 5 В

밁

8

S

밁 δ

멍

밁 Ś S

日 Ś 문 5 문 Ş 뮍 S 밁 S 뮍 á 밁 S 밁

₽

Ş

S 밁

JOURNAL ξ ? Homo sapiens (human)
Homo sapiens (human)
Homo sapiens
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
1 (bases 1 to 165490)
DOE Joint Genome Institute.
Sequencing of Human Chromosome 5
Unpublished AC139482

165490 bp DNA linear HTG 04-FEB-2003 below eapiens chromosome 5 clone RP11-583F24, WORKING DRAFT SEQUENCE, 12 unordered pieces.

AC139482

AC139482 1 GI:28201512

AC139482.1 GI:28201512

ACTIVEFIN. 2 (bases 1 to 165490)
2 Toint Genome Institute.
Direct Submission
Submitted (04-FEB-2003) Production Sequencing Facility, DOE Joint

582	Qy 522 GAACTGACACGAATCAAC	Qy 462 TCATGGGTCATCAGACTG	Query Match Best Local Similarity 91.1%; Matches 1949; Conservative		rce 1 /org /mol	* 85029 11464: contig * 114465 114564: gap of * 114565 165490: contig * 114565 165490: contig * 10cation/onalifiers	* 49274 67058: * 49274 67058: * 67059 67158: * 67159 84928: * 94929 95078	* 22534 34645 * 34646 34745; * 34646 49173; * 49174 49273			7		* NOTE: This is a 'w  * NOTE: This is a 'w  * consists of 12 con  * is not known and t  * arhitrary Gara h	Estimated insert siz Estimated insert siz Quality coverage: 3 Onality coverage: 4	Summary Statistics Consensus quality: 1 Consensus quality: 1 Consessus quality: 1	Project Information Center Project Name: Center clone name: R	Center Code: JGI Web site: http://www.jgi.doe.gov	85,
ACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGG	GAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC	TCATGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA	Score 1792.2; DB 2; Length 165490; Pred. No. 0; O; Mismatches 183; Indels 7; Gaps	:="5" 1-583F24" "RPCI human BAC library 11"	165490   Janism="Homo sapiens"   type="genomic DNA"   xref="taxon:9606"	contig of 29436 bp in length gap of unknown length contig of 50926 bp in length. alifiers	contig of 1778; gap of unknown contig of 1777(	contig gap of contig	contig of 6053 gap of unknown contig of 5314	contig of 2888 gap of unknown contig of 4098	contig of 1249 gap of unknown contig of 2331	is of N, but the exact sizes of the gaps are unknown. Is record will be updated with the finished sequence soon as it is available and the accession number will	orking draft' sequence. It currently tigs. The true order of the pieces heir order in this sequence record is treen the conting are represented as	Estimated insert size: 175000; agarose-fp estimation Estimated insert size: 164390; sum-of-contigs estimation Quality coverage: 3.94 in Q20 bases; sum-of-contigs estimation Quality coverage: 4.19 in Q20 bases; sum-of-contigs estimation.	147035 bases at least Q40 155210 bases at least Q30 158567 bases at least Q20	1 1: 1518520 RPCI-11_583F24	.jgi.doe.gov	l Drive, Walnut Creek, CA 94
	581 Ph	521 74780	4;	Oy Ob	Db.	Оу	Qy	Qy Db	Qy Db	Оу	Qy.	Qy Db	Qy Db	D QY	Оу	Q	ф	USA Db
1662 TCTCCTTGATATTACCAATACATTTTCCCTGTTTATCTTGCACTGAATCTTTCCTACTGAA 1721	73699 ACCTGACAGTTGCGGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTAGAT	73759 GCCTTCTGCCTCAGAAATGTCTCAGTGGAAAGCTTTAGTCTAAATAGATGTTTTGCAAT	1482 73819 1542	1422 GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA	1362 73939	1302 ATTTACTTCTTCGTGGGCTCCTTTAGGCAGACTCAAAATAGGCAGAACCTGAAGCTGGTT 1361 	1242 TGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC 1301	1182 CCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT 1241	1122 CTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTG 1181	1062 CTCTGTGGGTCCAGCCTGGTCCTGGTGAGAATTCTCTGTGGATCCCGGAAGATGCCG 1121	1002 GTTTGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGTG	942 CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT 1001	882 CACTGCCGCCCCCAGATACCTGTCATCGGTCATGTGTGTG	822 AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC 881	762 CGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA 821	702 GCGGACTTCCTCTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATC 761	74659 CTCCTGGGCTGCCGCATGCGCAGGAACGCCTTCTCCATCTACATCCTCAACTTGGCCGCA 74600	74719 642

```
RESULT 8
AC139482
                                                    VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                    뭐
                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                       DEFINITION
                                     SOURCE
                                                                                        ACCESSION
                     ORGANISM
                                                                                                                                                                                                                                                                                                   72804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                73043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           73220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                73280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         73460
                                                                                                                                                                                                                                  72746
                                                                                                                                                                                                                                                                                                                                                                                                                                           72923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             72983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     73103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      73160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   73340
                                                                                                                                                                                                                                                                                                                                                                        72863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1782
                                                                                                                                                                                                                                                                                                                                                                                                      2442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2082
                                                                                                                                                                                                                                                                                                                                     2502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2202
                                                                                 165490 bp DNA linear F
Homo sapiens chromosome 5 clone RP11-583F24, WORKING
SEQUENCE, 12 unordered pieces.
AC139482
                                AC139482.1 GI:28201512
HTG; HTGS_PHASE1; HTGS_I
Homo sapiens (human)
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
                     Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGCAAAATAATGACCTTAGAGAGAGATTCTCCCTTCATAAAAACAGTCTTAGAAATTGG 2021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGCTCAATTCCTTAATAAGTGAGTTCTGCTACCTCTAAATTCCATTGAATTCTCAGATATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACTATGTTCCCCTGAAAATCATGTTCCCTTTTATGACTGGAGGCATTACTGCAGTTGGA 1901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CACTTTTTCTGCACTTTTCATTGTAATAAAAGGAGTTGCTGTCCACAACCCCTAAAACTCT 1781
                                                                                                                                                                                                                                                                                                                                                                                        GAATTCTGATACATGCTGTGACATACATGAACCTGGAAATATTGTGCTAAGGAAAATAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACTATGTTCCCCTGAAAATCATGTTCCCTTCTATGACTGGAGGCATTACTGCAGTTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CACTTTTTCTGCAATTTTCTTTGTAATAAAAGGAGTTCCTGTACAAAACCCTAAAACAC- 73521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCTGATTGTAACTTTCAGTTAGTTTATATGGCTGTTTACATGAGAAGCAAAACTGAAAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTACAGATTCTTTCAGTTGTAGGAGAATTCTTCATACTTCCAGGTTTTGTATAAATTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTGGAĀACCTCAĀTĀTTGGTTTCAĀĀGTGGĀĀĀTTATCTTGĀĀĀACCĀTTTATTĀTTTG 7304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCTAGTAAAGACAATCGTGGCCCCTTCCCCCTTGAGAACTGGTAAGTTCTTATTTAGCTCT 2141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTTTATGAATAGCCCTCTCCTGTCATTTGTCCACAGCATGGTGACATGTTGGCCTTGGTT 2081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGCTCGATTCTTAATAAGTGAGTTCTGCTATCTCTACATTCCATTGAATTCTCAGATACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCTTTATACTTCTTTCCTACCTGATAGCATCAAAAAGGAAGATTCCTTATTAATCTCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCTTTATACTTGTTTCCTACCTGATAGTATCAAAAAGGAAGATTCCTTATTAATCTGTCA 1841
                                                                                                                                                                                                                                                      TGAACACAGAAAATAAATTAGGAGGATCCTGGTGCTGGA
                                                                                                                                                                                                                                                                                                                                   CCAGACGCCAAACAATATTGTAAGTTCAAATTCTATGAGGTATCCAAATTAGGAAATTCT
                                                                                                                                                                                                                                                                                                                                                                        GAATTCTGATACATGCT-TGACATAGATGAACCTGGAAACATTCTGCTAAGGAAAATAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCTGACCTTTCCATGACAATCTCAATTATGGTATCTGGATAATAACTTACAGTTGGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTACAGACTCTTTCAGTTGTAGAAGAATTCTTCATACTTCCAGGTTTTTGTACAAATTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTGGAAAACCTCAATATTGATTTTTAAAGTGGAAAATTATCTTGAAAAACCATTTATTATTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCCTGGACTAATGGACCAGTGAGGAGCCCATAAATGTG----CCCCAGTTCTATTTTGGCC 73104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCCTGGACTAATGAACTAGTGAGGAGCCTATAAATATGTCCCACCAGTTTCATTTTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCTAGTAAAGACAACTGTGGCCCCTTCCCCCTTGAGAACTTTTAAGTGCTTATTTAGCTCT 7316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGCAAAATAATGTCCTTAGAGACAGACTCTCTCTTCATAAAAAACACTCTCACCTATTGG 73281
                                                                                                                                                                                                                                  TGAACACAGAAATTAAATTAGGAGGATCCTGGTGCTAGA 72708
                                                                                                                                                                                                                                                                                                   CCAGATACCAAAGAACA--GTAAGTTCAAATTCTACCAGGTATCCAAACTAGGAAATTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                           TCTGACTTTTCCATGCTAATGTCAATTATGGTATCTTGATAATAACTTACAGTTGGTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCTGGCTGTAACTTTCAGTTAGTTAAATGGCCATTAACATGAGAGGCAAGACTGATAACA
                     sapiens
                                               HTGS_DRAFT; HTGS_ACTIVEFIN
                                                                                                                                                                                                                                                                  2600
 Euteleostomi;
                                                                                                                         HTG 04-FEB-2003
G DRAFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          73401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             73461
                                                                                                                                                                                                                                                                                                                                     2561
                                                                                                                                                                                                                                                                                                                                                                                                          2501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             72924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  72984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        73341
                                                                                                                                                                                                                                                                                                                                                                                                                                            72864
```

S

466 GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC 525

Query Match Best Local Similarity Matches 1891; Conserv

Conservative

0,

218; 멂

Indels

33;

Gaps

2

Length 165490;

62.5%;

Score 1637.2; Pred. No. 0; 0; Mismatches

```
REFERENCE
AUTHORS
TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
ORIGIN
                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                 Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Quality coverage: 3.94 in Q20 bases; agarose-fp estimation Quality coverage: 4.19 in Q20 bases; sum-of-contigs estimation.

*NOTE: This is a 'working draft' sequence. It currently consists of 12 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Consensus quality: 147035 bases at least Q40 consensus quality: 155210 bases at least Q30 consensus quality: 155570 bases at least Q20 Estimated insert size: 175000; agarose-fp estimation Estimated insert size: 164390; sum-of-contigs estimation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Direct Submission
Submitted (04-FEB-2003) Production Sequencing Facility, DOE Joint
Genome Institute, 2800 Mitchell Drive, Walnut Creek, CA 94598, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
1 (bases 1 to 165490)
DOB Joint Genome Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Summary Statistics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Center clone name: RPCI-11_583F24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Center: Joint Genome Institute
Center Code: JGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 (bases 1 to 165490)
DOE Joint Genome Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Center Project Name: 1518520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Project Information
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Web site: http://www.jgi.doe.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequencing of Human Chromosome
                                                                                                                                                                                                                                                                                               85029
114465
114565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ---Genome Center
                                                                                                                                                                                                                                                                                                                                                                                               22434
22534
34646
34746
49174
49274
67059
67159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1250
1350
3681
3781
                                                                                            /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
/chromosome="5"
                                                                                                                                                                                                                                 1. .165490
          /clone="RP11-583F24"
/clone_lib="RPCI hum:
                                                                                                                                                                                                                                                         ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                 114564:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10966:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1249:
                                                                                                                                                                                                                                                                                     contig of 1249 bp in le gap of unknown length contig of 2331 bp in le gap of unknown length contig of 2388 bp in le gap of unknown length contig of 4098 bp in le gap of unknown length contig of 6053 bp in le gap of unknown length contig of 5314 bp in le gap of unknown length contig of 12112 bp in le gap of unknown length contig of 12112 bp in le gap of unknown length contig of 17788 bp in le gap of unknown length contig of 17795 bp in le gap of unknown length contig of 17795 bp in le gap of unknown length contig of 17790 bp in le gap of unknown length contig of 17790 bp in le gap of unknown length contig of 129436 bp in le gap of unknown length contig of 50926 bp in length c
                           human BAC
                              library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        length
bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              length
                                                                                                                                                                                                                                                                                                                                                             length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             length
                                                                                                                                                                                                                                                                                                                                                                                                                              length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               length
                                  11
```

1540 TAGCCTTCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTATC 1599	1480 CAGACAGGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCT 1539	1424 AACCCTGGAGCTGTCGGGAAGCAGATTGGAGGAGGGAAGAACCTCTGCCCTGT 1479	1364 CCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGA 1423	TTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCT 1363	TCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCAT 1303	CTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTG 1243	1124 GACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCC 1183	1064 CTGTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCT 1123	1063	GCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGT 1003	122058	826 TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACT 885	766 ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCCTACTTTATAGGCCTAAGCA 825	ACTTCCTCTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCC 765	646 TGGGCTGCCGATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCG 705	586 GGCTGACGTGCATCGTTTCCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCC 645	526 TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG 585	121579 GGGACACCAGACTACCGTTTCTGAGCGTGGATCCAAGCCAACCCAGCCTTGGATGCAGAAC 121638
RESULT 9 CQ815414	Qy       2559 TCTTGAACACAGAAATAAATTAAGGAGGATCCTGGTGCTGGA       2600	2500 AGCCAGACCCA AACAALAI ISLIANSI ICHANI ICLAIGAGSIAI CCHANI ICAGGACAA I CHANI ICLAIGAGSIAI CCHANI ICHANI ICLAIGAGSIAI CCHANI IAGGACAA I CHANI ICLAIGAGACAA I CHANI ICLAIGAGA I CHANI ICLAIGAGA I CHANI ICLAIGAGA ACTAGGAAA I CAAACCAAAGAACCAAGAACAATATTGTAAACTTATGAGATATTGAAACTAGGAAAT	2440 CAC    123533 TAC	2380 CATCTGACCTTTCCATGACAATCTCAATTATGGTATCTGGATAATAACTTACAGTTGGTA		TTACAGATTCTTTCAGTTGTAGGAGAATTCTTCATACTTCCAGGTTTTGTATAGATT 		CTTCCTGGACTAATGACTAGTGAGGAGGCTATAAATATGTCCACCACTAGTTCATTTCAT	2080 TTTCTAGTAAAGACAATCGTGGCCCCTTGCCTTGAGAACTGGTAAGTTCTTATTTAGCT		Qy         1960 TAAAGCAAARTAATGACCTTYAGAGAGAGAATTCTCCCTTCATAAAAACAGTCTTAGAAATT         2019	OY 1900 GAAGCTCAATTCTTAATAAGTGAGTTCTGTTATCTCTCAAATTCCATTGAATTCTCAAATTCTCAAATA 1999	8=8	CTTCTTTATACTTTTCCTACCTGATAGTATCAAAAAGGAAGATTCCTTATTAATCTGT	OY 1720 AACACTTTTCTGCACTTTTCATIGTATAAAAGGAGTTGCTGTCCACAACCCTAAAACT 1//9	122774 ATTCTCCTTGATATTACCAACACATTTTCCTGTTATCTTACACTG	122714 TATACTGACAGTTCCAGTTTCATCCACAGAAAGCATTAGTCTGACAGTACAATGTTTAG	OV 1600 TAACCTGACAGTTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGG 1659

. рь	Qy 1	p &	유 왕	φ φ	QV db	QQ ·	рь <b>2</b> 2	4G VQ	Db Qy	р 8	QY db	Query Match Best Local Simil Matches 1596; C	ORIGIN	JOURNAL FEATURES	AUTHORS TITLE	SOURCE	VERSION KEYWORDS	LOCUS
122 CTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTG 1181	062 CTCTGTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCG 1121	002 GTTTGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGTG	942 CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT 1001	882 CACTGCCGCCCCAGATACCTGTCATCGGTCATGTGTCCTGCTCTGGGCCCTGTCC 941	822 AGCATGCTGAGCGCCATCAGCACCGAGCGCTGTCCCTGTCCATCCTGTGGCCCATCTGGTAC 881	762 CGCCATCCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA 821	702 GCCGACTTCCTTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATC 761	642 CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG 701	582 ACGGGGCTGACGTTGCCTTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGG 641	522 GAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC 581	462 TCATGGGTCATCAGACTTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA 521	tch 56.7%; Score 1483.8; DB 6; Length 2040; al Similarity 91.4%; Pred. No. 0; 1596; Conservative 0; Mismatches 147; Indels 4; Gaps 2;	/or /mc /db	D	dolz,S., Brueggemeier,U., Geerts,A. and Thiele,R. Diagnostics and therapeutics for diseases associated with human mas-related gene x1 (mrgxl)			CQ815414 2040 bp DNA linear PAT 03-JUN-2004 Sequence 1 from Patent WO2004042402.
B &	) B	S B 8	S B 4	Q	S B 8	}	) B 4	Q	S B S	, B &	} B 4	§ § §	dg dy	A5 48	D	S & S	da	Q
202 ATTGGAA 208         2034 ATTGGAA 2040		101A11AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	TOTAGE AGE TO THE TOTAGE OF THE TOTAGE AGE TO THE TOTAGE TO THE TOTAGE TO THE TOTAGE AGE TO THE TOTAGE AGE TO THE TOTAGE		1902 AGC 1944 I CITAMIANG WAGIT CIGCTACCTITAMIA CONTROLL 1904 I CONTROLL 1904	1842 GACIAIGITECEC IGAMARICATGITECETITIAIGAC IGAGGCATIACIGEAGITAGA 1791 1877 GACTATGITECECTGAAAATCATGITECCCTTATGACTGGAGGCATTACTGCAGTTAGA 1736			1652 TCTCCTTGATATIACCAATATCATTTTCCTGTTATCTGTGTGTGTGTGTGCTGCACACAACCCTTAAAACCTTTCCTACAAAACTCTTTCCTACAGAA 1557 1498 TCTCCTTGATATTTACCAACACATTTTCCCTGTTATCTCACACTGAATCTTTCCTACAGAA 1557			1482 GACAGGACTTTGAGAGGCAATGCTGCCCACCCTTGACAATTATATGCATTTTTCTTA 1541		1362 CTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAG 1421	138 ATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT 1197			1182 CCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT 1241

```
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 10
AX299143
LOCUS
                                                                                                                                                                                                                                 र्
                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
ACCESSION
                                 밁
                                                               ঠ
                                                                                               문
                                                                                                                    ર્ક
                                                                                                                                               B
                                                                                                                                                                        8
                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                   ફ
                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches 1596;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sg
                 942
                                           718
                                                                                                                            822
                                                                                                                                                        598
                                                                                                                                                                                                            538
                                                                                                                                                                                                                                        702
                                                                                                                                                                                                                                                                     478
                                                                                                                                                                                                                                                                                              642
                                                                                                                                                                                                                                                                                                                           418
                                                                                                                                                                                  762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 15
AX299143
AX299143.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pain signaling molecules
Patent: WO 0183555-A 15 08-NOV-2001;
CALIFORNIA INSTITUTE OF TECHNOLOGY (
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Anderson, D.J.,
CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT
                                                                                                                                                                                                                            GCCGACTTCCTCTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATC
                                                                                                                                                                                                                                                                  ACGGGGCTGACGTGCATCGTTTCCCCTTGTCGCGCTTGACAGGAAACGCGGTTGTGCTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                GAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCATGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA
                                             CGCTGCCACCCCCACACCCTGTCAGCGGTGTGTGTGTGTCCTGCTCTGGGCCCTGTCC
                                                             CACTGCCGCCCCCAGATACCTGTCATCGGTCATGTGTGTCTCCTGCTCTTGGGCCCTGTCC
                                                                                                                                                       CCCCATACCATCTCTAAAATCCTCTATCCTGTGATGATGTTTTTCCTACTTTGCAGGCCTG
                                                                                                                                                                     CGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
                                                                                                                                                                                                                                                                                                                           ACGGTGCTGACGTGCATCGTTTCCCTTGTCGGGCTGACAGGAAACGCAGTTGTGCTCTGG
                                                                                                                                                                                                                                                                                                                                                                                GAACTGACACCAATCAACGGAACTGAGGAGACTCTTTGCTACAAGCAGACCTTGAGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                        TCCAGGGTCACCAGACTAGGGTTTCTGAGCATGGATCCAACCATCTCAACCTTGGACACA
                                                                                                                          AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /codon_start=1
/protein_id="CAD12706.1"
/protein_id="CAD12706.1"
/db_xref="G1:17129052"
/translation="MDPTISTLDTELTPINGTEETLCYKQTLSLTVLTCIVSLVGLTG
/translation="MDPTISTLDTELTPINGTEETLCYKQTLSITVLTCIVSLVGLTG
NAVVLWLLGCRMRRNAPSIYILNLAAADPLFLSGRLIYSLLSFISIPHTISKILYPVM
MFSYPAGLSFLSAVSTERCLSVLWPIWTCHRPTLSAVVCVLLWALSLLKSTLEWML
CGFLFSGADSAWCQTSDFITVAWLIFLCVVLCGSSLVLLRILGGSRKLFLTRLYVTI
LLTVLVFLLCGLPFGJOFFLFWIHVDREVLFCHVHLVSIFLSALNSSANPIIYFFVG
SFRQRQNRQNLKLVLQRALQDASEVDEGGGQLPEEILELSGSRLEQ"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   organism="Homo sapiens"
/mol_type="unassigned DN
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            note="unnamed protein product"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GI:17129051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .2040
                                                                                                                                                                                                              CTTCCTCAGCGGCCGCCTTATATATTCCCTGTTAAGCTTCATCAGTATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            56.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Dong, X.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Patent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Chordata;
Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 1483.8;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Zylka,M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2040 bp
WO0183555.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Han, S.K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (US)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             147;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Simon, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                    821
                                                                                                                                                                                                                                                                                                                                                                                                                                      357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   521
                                                                       941
                                                                                                                            881
                                                                                                                                                        657
                                                                                                                                                                                                               597
                                                                                                                                                                                                                                        761
                                                                                                                                                                                                                                                                     537
                                                                                                                                                                                                                                                                                               701
                                                                                                                                                                                                                                                                                                                           477
                                                                                                                                                                                                                                                                                                                                                     641
                                                                                                                                                                                                                                                                                                                                                                                417
                                                                                                                                                                                                                                                                                                                                                                                                            581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N
                                                                                                                                  ঠ
                                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                                                                               뫄
                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     멼
  밁
                       ঠ
                                                        밁
                                                                              र्
                                                                                                            문
                                                                                                                                                                    문
                                                                                                                                                                                              Ś
                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                      1782
                                                                                                                                                                                                                                                                                                                                        1498
                                                                                                                                                                                                                                                                                                                                                                                              1438
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1138
    1857
                               2022
                                                          1797
                                                                                     1962
                                                                                                               1737
                                                                                                                                         1902
                                                                                                                                                                     1677
                                                                                                                                                                                                 1842
                                                                                                                                                                                                                            1617
                                                                                                                                                                                                                                                                                  1558
                                                                                                                                                                                                                                                                                                            1722
                                                                                                                                                                                                                                                                                                                                                                  1662
                                                                                                                                                                                                                                                                                                                                                                                                                         1602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACAGGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTTTATAAAAAGTCTTCCCCTGTCATTTGTTCACAGCATGGTGATATGTTGGCCTTGGTT
                     TTTTATGAATAGCCCTCTCCTGTCATTTGTCCACAGCATGGTGACATGTTGGCCTTGGTT
                                                          GAGCAAAATAATGTCCTTAGAGACAGACTCTCTCTTCATAAAAAACACTCTCACCTATTGG
                                                                          AAGCAAAATAATGACCTTAGAGAGAGATTCTCCCTTCATAAAAACAGTCTTAGAAATTGG
                                                                                                                                         AGCTCAATTCTTAATAAGTGAGTTCTGCTACCTCTAAATTCCATTGAATTCTCAGATATA
                                                                                                                                                                        GACTATGTTCCCC
                                                                                                                                                                                    GACTATGTTCCCCTGAAAATCATGTTCCCTTTTATGACTGGAGGCATTACTGCAGTTGGA
                                                                                                                                                                                                                                           TCTTTATACTTGTTTCCTACCTGATAGTATCAAAAAGGAAGATTCCTTATTAATCTGTCA
                                                                                                                                                                                                                                                                                  CACTTTTTCTGCAATTTTCTTTGTAATAAAAGGAGTTCCTGTACAAAACCCCTAAAACAC-
                                                                                                                                                                                                                                                                                                  CACTITITCIGCACTITICATITGIAAIAAAAGGAGTIGCIGITCCACAACCCCIAAAACTCI
                                                                                                                                                                                                                                                                                                                                        TCTCCTTGATATTACCAACACATTTTCCCTGTTATCTCACACTGAATCTTTCCTACAGAA
                                                                                                                                                                                                                                                                                                                                                        TCTCCTTGATATTACCAATACATTTTCCCTGTTATCTTGCACTGAATCTTTCCTACTGAA
                                                                                                                                                                                                                                                                                                                                                                                               ACCTGACAGTTGCGGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                ACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCTTCTGCCTCAGAAATGTCTCAGTGGTTCCTCAAGGTCTTCAAATAGATGTTTATCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCTTCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACAGGACTTTGAGAGCAACACTGCCCTGCCACCCTTGACAATTATATGCGTTTTTCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAAATCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAGCCTCTGCCCTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTTACTTCCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGTCATGTTCATCTAGTTTCTATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGTCATGTGCATCTAGTTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCTTTGGCATTCAGTTTTTCCTATTTTTATGGATCCACGTGGACAGGGAAGTCTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGACCAGGCTGTACGTGACCATCCTGCTCACAGTACTGGTCTTCCTCCTCTGTGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTCTGTGGGTCCAGCCTGGTCCTGATCAGGATTCTCTGTGGATCCCGGAAGATACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTCTGTGGGTCCAGCCTGGTCCTGCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGCTGCGGAGCATCCTGGAGTGGATGTTATGTGGCTTCCTGTTCAGTGGTGCTGATTCT
                                                                                                               TCTTTATACTTCCTTACCTGATAGCATCAAAAAGGAAGATTCCTTATTAATCTCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCCAGAGGGCTCTGCAGGACGCGTCTGAGGTGGATGAAGGTGGAGGGCAGCTTCCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1077
       1916
                                 2081
                                                           1856
                                                                                       2021
                                                                                                                 1796
                                                                                                                                            1961
                                                                                                                                                                        1736
                                                                                                                                                                                                                              1676
                                                                                                                                                                                                                                                        1841
                                                                                                                                                                                                                                                                                   1616
                                                                                                                                                                                                                                                                                                                                           1557
                                                                                                                                                                                                                                                                                                                                                                                                1497
                                                                                                                                                                                                                                                                                                                                                                                                                                                        1437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           957
```

S	Qy Db	Query Best L Matche	ORIGIN			CDS	gene	FEATURES sou	TITLE	MEDLINE PUBMED REFERENCE	AUTHORS TITLE	ORGANISM	ACCESSION VERSION KEYWORDS	RESULT 11 AY042213 LOCUS DEFINITION	Db 4	B &	P 29	
522 GAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCCTGAGCTTC 581	462 TCATGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA 521	Query Match 56.7%; Score 1483.8; DB 9; Length 2040; Best Local Similarity 91.4%; Pred. No. 0; Matches 1596; Conservative 0; Mismatches 147; Indels 4; Gaps 2;	LLTVLVELLCGLPFGIQFFLFLWIHVDREVLFCHVHLVSIFLSALNSSANPIIYFFVG SFRQRQNRQNLKLVLQRALQDASEVDEGGGQLPEBILBLSGSRLEQ"	/db_xref="GI:15546062" /translation="MDPTISTLDTELTPINGTEETLCYKQTLSLTVLTCIVSLVGLTG /translation="MDPTISTLDTELTPINGTEETLCYKQTLSLTVLTCIVSLVGLTG /AVVIWLLGCRMRRAFSIYILNLAAADPILFLSGRLIVSLLSFISIPHTISKILYPVM MFSYFAGLSFISAVGTERCLSVLWPIWYRCHRPTILSAVVCVLLWALSLLKSILEWNL CGFLFSGRANGAWCOTGRETTVAWLTFICVATIGGSGIATLIFFICTFIVTT	/note="Mas-related gene X1" /codon_start=1 /product="6 protein-coupled receptor" /protein_id="AAK91804.1"			Location/Qualifiers 1. 2040 /organism="Homo sapiens" /mol type="genomic DNA"	Direct Submission  Direct Submission  Submitted (19-JUN-2001) Division of Biology, 21  Institute of Technology, 1201 E. California Blv  91125. USA			M Homo sapie Eukaryota; Mammalia;	N AY042213  AY042213.1 GI:15546061  Homo sanions (human)	¥ -	2034 ATTGGAA 2040	TCCTGGA	TCTAGTAAAGACAATCGTGGCCCCTTCCCCCTTGAGAACTGGTAAGTTCTTATTTAGCTCT	
B &	) B &	? B &	용 4	§ § &	Qy Db	D Q	gg Qy	8 g	Db Oy	B &	р <b>Q</b>	B &	g Qy	g dq	g Q	B &	Db 03	•
1602 ACCIGACAGITICAGCICATGAAAGCATTAGICTGACAGIACAATGITTAGAT 1801 	CCLIC GCC CAMANA GCC		GAAATCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAGCCTCTGCCCTGTCA	1362 CTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAG 1421	1302 ATTTACTTCGTGGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT 1361 	1242 TGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC 1301	1182 CCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT 1241	1122 CTGACCAGGCTGTACGTGACCATCCTCCACAGTGCTGGTCTTCCTCCTCTGTGGCCTG 1181	1062 CTCTGTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCG 1121	1002 GTITGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGTG	942 CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT 1001	882 CACTGCCGCCCCAGATACCTGTCATCGGTCATGTGTGTCCTCGCTCTGGGCCCTGTCC 941	822 AGCATÓCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC 881	762 CGCCATCCCAACTCTCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA 821	702 GCCGACTICCTCTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATC 761	642 CTCCTGGGCTGCCGATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG 701	358 GAACTGACACAATCAACGAACTGAGGAGACTCTTTGCTACAAGCAGACCTTGAGCCTC 417 582 ACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACACGCAAACGCGGTTGTGTCTCTGG 641	

밁

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 12
BC067292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
Strausberg, R.L., Feingold, B.A., Grouse, L.H., Derge, J.G.,

Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D.,

Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K.,

Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F.,

Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,

Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,

Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S.,

Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,

Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J.,

McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,

Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.M.,

Villalon, D.K., Muzny, D.M., Sodergren, B.J., Lu, X., Gibbs, R.A.,

Fahey, J., Hellon, B., Ketteman, M., Madan, A., Rodrigues, S.,

Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y.,

Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, B.D.,

Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M.,

Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.B.,

Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1697 bp mRNA linear
Homo Bapiens G protein-coupled receptor MRGX3, mRNA
MGC:75450 IMAGE:30383708), complete cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BC067292.1 GI:45501076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCCTGGACTAATGAACTAGTGAGGAGGCCTATAAATATGTCCCACCAGTTTCATTTTGGCC 2201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCTAGTAAAGACAATCGTGGCCCCTTCCCCTTGAGAACTGGTAAGTTCTTATTTAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTTTATGAATAGCCCTCTCCTGTCATTTGTCCACAGCATGGTGACATGTTGGCCTTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGCAAAATAATGACCTTAGAGAGAGATTCTCCCCTTCATAAAAACAGTCTTAGAAATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTGGAA 2208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGCAAAATAATGTCCTTAGAGACAGACTCTCTCTTCATAAAAACACTCTCACCTATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGCTCGATTCTTAATAAGTGAGTTCTGCTATCTCTACATTCCATTGAATTCTCAGATACA 1796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCTCAATTCTTAATAAGTGAGTTCTGCTACCTCTAAATTCCATTGAATTCTCAGATATA 1961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACTATGTTCCCCTGAAAATCATGTTCCCTTCTATGACTGGAGGCATTACTGCAGTTAGA 1736
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GACTATGTTCCCCTGAAAATCATGTTCCCTTTTATGACTGGAGGCATTACTGCAGTTGGA 1901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCTTTATACTTGTTTCCTACCTGATAGTATCAAAAAGGAAGATTCCTTATTAATCTGTCA 1841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CACTTTTTCTGCACTTTTCATTGTAATAAAAGGAGTTGCTGTCCACAACCCTAAAACTCT 1781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCTCCTTGATATTACCAACACTTTTCCCTGTTATCTCACACTGAATCTTTCCTACAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTGGAA 2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCCTGGACTAATGGACCAGTGAGGAGCCCATAAATGTG----CCCCAGTTCTATTTTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCTAGTAAAGACAACTGTGGCCCCTTCCCCTTGAGAACTTTTAAGTGCTTATTTAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTTTATAAAAAGTCTTCCCCTGTCATTTGTTCACAGCATGGTGATATGTTGGCCTTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CACTTTTTCTGCAATTTTCTTTGTAATAAAAGGAGTTCCTGTACAAAACCCTAAAACAC-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCTCCTTGATATTACCAATACATTTTCCCTGTTATCTTGCACTGAATCTTTCCTACTGAA 1721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRI 30-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1856
```

S 밁 8

517 GTACAGAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGA 576

AACGATAAGGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGG AATCCTCATGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGG 516

386

Matches

1308;

Conservative

0

Score 1300.2; DB 9 Pred. No. 3.9e-309; 0; Mismatches 13;

9

Indels Length

0

Gaps

Query Match Best Local Similarity

49.7%;

S 뭐 ð 밁 S 밁 र् 밁 S 문 8 문 S 밁 S 밁 र्

```
JOURNAL
PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REMARK
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            info@bcgsc.bc.ca
Steve Jones, Sarah Barber, Mabel Brown-John, Yaron Butterfield,
Andy Chan, Steve S. Chand, William Chow, Alison Cloutier, Ruth
Andy Chan, Steve S. Chand, William Chow, Alison Cloutier, Ruth
Featherstone, Malachi Griffith, Obi Griffith, Ran Guin, Nancy Liao,
Kim MacDonald, Amara Masson, Mike R. Mayo, Josh Moran, Ryan Morin,
Teika Olson, Diana Palmquist, Anca Petrescu, Anna Liisa Prahbu,
Parvaneh Saeedi, JR Santos, Angelique Schnerch, Ursula Skalska,
Duane Smailus, Jeff Stott, Miranda Tsai, George Yang, Jacquie
Schein, Asim Siddiqui, Rob Holt, Marco Marra.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            through the I.M.A.G.B. Consortium/LLNL at: http://image.llnl.gov
Series: IRAK Plate: 141 Row: m Column: 20
This clone was selected for full length sequencing because it
passed the following selection criteria: matched mRNA gi: 16876452.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cDNA Library Preparation: Invitrogen Corp
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Dr. Michael Brownstein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (12-MAR-2004) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               human and mouse cDNA sequences 
Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Generation and initial analysis of more than 15,000 full-length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Clone distribution: MGC clone distribution information can be found
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA Sequencing by: Genome Sequence Centre, BC Cancer Agency, Vancouver, BC, Canada
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Strausberg, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (bases 1 to 1697)
                                                                                                 /Godon_start=1
/product="G_protein-coupled_receptor_MRGX3"
/protein_id="Aah67292.1"
/protein_id="Aah67292.1"
/db_xref="GI:45501077"
/db_xref="LocusID:117195"
/db_xref="MIM:607229"
/db_xref="MIM:607229"
/db_xref="MIM:607229"
/translation="MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTG
/kranslation="MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTG
/kranslation="MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTG
/kranslation="MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTG
/kranslation="MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTG
/kranslation="MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTG
/kranslation="MDSTIPVLGTELTPINGREETPCYKGTLSFTGLTCIVSCANDLTRELYVTI
/kranslation="MDSTIPVLGTETPCYKGTLSFTGLTCIVSCANDLTRELYVTI
/kranslation="MDSTIPVLGTETPCX"
/kranslation
SFRQRQNRQNLKLVLQRALQDTPEVDEGGGQLPQETLELSGSRLEQ
                                                         LLTVLVFLLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              'db_xref="LocusID:117195"
'db_xref="MIM:607229"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /clone="MGC:75450 IMAGE:30383708"
/tissue type="Testis"
/clone lib="NIH MGC 180"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             organism="Homo sapiens"
/mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene="MRGX3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene="MRGX3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             note="Vector:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PCMV-SPORT6.1"
```

		۳	
1257 1 1227 1 1417 ( 1287 ( 1287 ( 1347 ) 1347 1 1537 1 1537 1		877 C 747 C 937 7 807 7 1 1057 7 927 7	387 ( 577 ( 447 ( 637 7 567 7 567 7 567 7 687 ( 817 (
GGTTC TCGGTTC TCGGTTC TCGGTCAC TCGTCAC TCTTAC TCTTAC TCTTAC	GCCGC	GGTTC	TATCC TATCC TOTAL TATCC TOTAL
TICCAGE TICCAG	TGACC TTAC TTTAC TTTAC	ACTGC ACTGC ACTGC TGCTG TTGCTG TTTTGG TTTTGG TTCTGT	AACTG AACTG CGGGG CGGGC CGGGC CCGAC CCCGAC CCCCAC CCCCCAC CCCCAC CCCCCAC CCCCAC CCCCCAC CCCCCAC CCCCCAC CCCCCAC CCCCAC CCCCCAC CCCCCAC CCCCCAC CCCCCC
AGGGC AGGGC CTGGA CTGGA CTGGA ACTIT ACTIT ACTIT TGCCT TGCCT TGCCT	AGGCTY AGGCTY AGGCAT GGCAT GGCAT GGCAT GTGCAY GTGCAY GTGCAY GTGCAY GTGCAY GTGCAY	CGGAG	CTGAGCTTGAGCTGAGCTGAGCTGAGCTGAGCTGAGCTG
	GTACGI         TCAGIC        CAGIC        CAGIC        CTAGI	CCCCAC CCCCAC CCCCAC CCCCAC CCCCAC CATCCI IATCCI IA	ATTULE STREET OF THE PROPERTY
XGGACA XGGAACA XGGAACA XGGAACA XGGAACA XGGAACA XGGGAACA XGGGAACA XGGGAACA XGGGAACA XGGGAACA XGGGACA XGGCAC XGGGACA XGGCAC XGCAC XGCA	GACCA	AGATT	CAGCA
CAGTGG	TCCTC	TGTCA:	GEGAACC GEGAACC GEGAACC GEGAACC GEGAACC GEGAACC GEGAACC GEGAACC GEGAACC GECAACC GECAAC
	Traca	rcegro	AGACT SCTGTG COTGTG
	TECCECTGACCAGECTETACGTEAACCATCCTCCTCACAGTGCTGGTCTTCTCTCTTTTTTTCTTTTTTTT	GGTACCACTGCCGCCCCCAGATACCTGTCATCGTCATGTGTGTCCTGCTCTGGGCCC	
AGGIAGAAGAAGAAGAAGAAGAAGAAGAAGAAGAAGAAGA	GTCTT GTCTT GTCTT GTCTT GTCTT GTCTGA CTGGA CTGGA CTGGA CTGGA CTACAG CTAC	IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	TACAT TACAT TACAT TACAT TACAT TACAT TACAT TACAT TACAT TACAT TACAT
AGGGCT AGGCT AGACCT ATATG	CAGTG	GCTCTY GCTCTY GCTCTY TAGTGY TAGTGY TTTTTTT TTTTTTTTTTTTTTT	GIGGG
AGCTTC AGCTTC AGCTTC CTGCCC CTGCC CTGCCC CTGCC	ICTGTG IC	3GGCCC 3GGCCCC 3TGCTG 3TGCTG 3TGCTG 11     11     11      11	CCATCI
1286 1286 1476 1346 1536 1406 1596 1466		936 806 996 1 866 1 1056 1 926 1 1116	506 506 506 506 506 696 686 686 686

8 8 8 8 8 8

8 8 8

8 8 8 8

유 성 유

Ş

8 8 8 8 8

음 중

8 8 8 8

8 8 8 8

Ş

REFERENCE AUTHORS	TITLE	KEYWORDS I I SOURCE ORGANISM I REFERENCE I AUTHORS I TITLE JOURNALL REFERENCE AUTHORS	17. 16. 16. 13. 4. 10N	Qy 1717 Db 1587	Db 1467 Qy 1657 Db 1527
Research, 320 (01-DEC-2001) whitehead institute(FM11 Centre) for Sending Research, 320 (Darles Street, Cambridge, MA 02141, USA 3 (bases 1 to 189230)  Birren,B., Linton,L., Nusbaum,C., Lander,E., Ali,A., Allen,N., Anderson,S., Barna,N., Bastien,V., Bloom,T., Boguslavkly,L., Boukhgalter,B., Brown,A., Camarata,J., Campopiano,A., Chang,J., Chazaro,B., Choepel,Y., Colangelo,M., Collins,S., Collymore,A., Cook,A., Cooke,P., DeArellano,K., Dewar,K., Diaz,J.S., Dodge,S., Farzeira,P., FitzHugh,W., Gage,D., Galagan,J., Gardyna,S., Fargeira,P., FitzHugh,W., Gage,D., Galagan,J., Gardyna,S., Ginde,S., Gord,S., Goyette,M., Graham,L., Grand-Pierre,N., Hagos,B., Horton,L., Hulme,W., Illev,I., Johnson,R., Jones,C., Kamat,A., Karatas,A., Kells,C., LaRocque,K., Landers,T., Lehoczky,J., Levine,R., Lindblad-Toh,K., Liu,G., MacCaenthy,M., McEwan,P., McKernan,K., Marquis,N., Matthews,C., McCarthy,M., McBwan,P., McKernan,K., Meldrim,J., Meneus,L., Mihova,T., Mlenga,V., Murphy,T., Naylor,J., Nguyen,C., Nicol,R., Norbu,C., Norman,C.H., O'Connor,T., O'Donnell,P., O'Neil,D., Oliver,J., Peterson,K., Phunkhang,P., Pierre,N., Pollara,V., Raymond,C., Retta,R., Rieback,M., Riley,R., Rise,C., Rogov,P.,	Javkly, L., Boukngal ang, J., Chazaro, B., Jlymore, A., Cook, A., J.S., Dodge, S., Far gan, J., Gardyna, S., , Grand-Pierre, N., , Illev, I., Johnso LaRocque, K., Liu, G., Levine, R., Liu, G., pqiis, N., Matthews, C., pqiis, N., Matthews, C., heeters, R., Meldrim, T., Naylor, J., Nguy, Erre, N., Pollara, V., R., Rise, C., Rogov, R., Rise, C., Rogov, Schauer, S., Schuph Thomann, N., Stojan Tesfaye, S., Theodor Lio, J., Vassiliev, H., L	Is (human)  Is (human)  Metazoa; Chordata; Craniata; Vertebrata; Metazoa; Primates; Catarrhini; Hominidae (to 189230)  Linton,L., Nusbaum,C. and Lander,E. (to 189230)  Linton,L., Nusbaum,C., Lander,E., Ali,A. (to 189230)	A 1777 A 1647 A 1647 CC103974 CC103974 CC103974	$\Omega = \Omega$	7 ATCTAACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTT 1526 7 TGGATTCTCCTTGATATTACCAATACATTTTCCCTGTTATCTTGCACTGAATCTTTCCTA 1716

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      source
                                                            repeat_region
                                                                                                                                                                                                    repeat_region
              repeat_region
                                                                                                          repeat_region
                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RS Birren, B., Linton, L., Nusbaum, C., Lander, E., Ali, A., Allen, N., Anderson, S., Barna, N., Bastien, V., Bloom, T., Boguslavkiy, L., Anderson, S., Barna, N., Bastien, V., Bloom, T., Boguslavkiy, L., Anderson, S., Camponiano, A., Chang, J., Chazaro, B., Choepel, Y., Colangelo, M., Collins, S., Collymore, A., Cook, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Farro, S., Ferreira, P., Fitzhugh, W., Gaye, D., Galagan, J., Gardyna, S., Goyder, S., Goyette, M., Graham, L., Grand-Pierre, N., Hagos, B., Horton, L., Hulme, W., Iliev, I., Johnson, R., Jones, C., Kamat, A., Karatas, A., Kells, C., LaRocque, K., Lamazares, R., Landers, T., Lehoczky, J., Levine, R., Lindblad-Toh, K., Liu, G., MacLean, C., Madonald, P., Major, J., Marquis, N., Matthews, C., McCarthy, M., McEwan, P., McKernan, K., Meldrim, J., Meneus, L., Mihova, T., Mlenga, V., Murphy, T., Naylor, J., Nguyen, C., Nicol, R., Norbu, C., Norman, C., H., O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Peterson, K., Phunkhang, P., Pierre, N., Pollara, V., Namynond, C., Retta, R., Rieback, M., Riley, R., Rise, C., Rogov, P., Raymond, C., Rosteri, M., Roy, A., Santos, R., Schauer, S., Schupback, R., Seaman, S., Severy, P., Spencer, B., Stange-Thomann, N., Stojanovic, N., Strauss, N., Subramanian, A., Talamas, J., Tesfaye, S., Theodore, J., Viel, R., Vo, A., Wilson, B., Wilson,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (13-MAY-2002) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA On May 13, 2002 this sequence version replaced gi:20330974. All repeats were identified using RepeatMasker: Smit, A.F.A. & Green, P. (1996-1997) http://ftp.genome.washington.edu/RM/RepeatMasker.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Roman, J., Rosetti, M., Roy, A., Santos, R., Schauer, S., Schupback, R. Seaman, S., Severy, P., Spencer, B., Stange-Thomann, N., Stojanovic, I. Strauss, N., Subramanian, A., Talamas, J., Tesfaye, S., Theodore, J., Tophan, K., Travers, M., Travis, N., Trigilio, J., Vassiliev, H., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Ye, W.J., Young, G., Zainoun, J., Zembek, L., Zimmer, A. and Zody, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (bases 1 to 189230)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: sequence submissions@genome.wi.mit.edu
------ Project Information
Center project name: L21856
Center clone name: 1081_L_13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Center: Whitehead Institute/ MIT Center for Genome Research Center code: WIBR
/rpt_family="(TA)n"
complement (4482. .45,
/rpt_family="L1MC4a"
                                                                                                                 /rpt_family="L2"
4172. .4245
                                                                                                                                                             /rpt_family="L1MD2"
3396. .4062
                                                                                                                                                                                                         complement (2381.
                                                                                                                                                                                                                                                                                                  /rpt_family="(CTCA)n"
|203. .1215
                                                                                                                                                                                                                                                                                                                                              /clone="RP11-1081L13"
/clone_lib="RPCI-11 Human Male BAC"
198. _223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (26-APR-2002).Whitehead Institute/MIT Center for Genome 320 Charles Street, Cambridge, MA 02141, USA
                                                                               rpt_family="AT_rich"
                                                                                                                                                                                                                                                                             note="<30 qual SNGL region"
                                                                                                                                                                                                                                                                                                                                                                                                                                               chromosome="11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .189230
                                                                                                                                                                                                                                   family="L2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      http://www-seq.wi.mit.edu
                                                                                                                                                                                                         .3394)
                     .4546)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Schupback, R.,
Stojanovic, N.,
Query Match
                                         repeat_region
                                                                                                                                repeat_region
                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                            repeat_region
                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note="<30 qual SNGL region"
complement (20691. .20874)
/rpt_family="LIMD3"
21261. .274
                                                                                                                                                                                                                                                                                                  complement (25885. .27145)
/rpt_family="L1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /rpt_family="AT_rich" 9218. .9800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                complement (4547. .4857)
/rpt family="AluJo"
complement (4858. .5400)
                                                                                                                                                                                complement (30530
                                                                                                                                                                                                         complement (29632. .30526)
/rpt_family="L1"
                                                                                                                                                                                                                                                                               complement (27179
                                                                                                                                                                                                                                                                                                                                                                         complement (25039)
                                                                                                                                                                                                                                                                                                                                                                                                                    complement (24717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                complement (22560.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             complement (16959. .17034)
/rpt_family="L2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           complement (15115.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         complement (14660.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   complement (11450.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              complement (22308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /rpt_family="
19705. .19813
                                                                                                                                                                                                                                                       ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                            ž
Į
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ığ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ਸ਼ੂ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                å,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Į,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ng,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       췯
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        family="L1PB1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                _family="L2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      _family="L1MC4a"
                                                                                       family="AluSx"
ement(31=="
                                                                                                                                  family="LIMEC"
[ement(31247)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       family="L1P4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           family="AluSg1"
[ement(2256)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tement(15612. .15692)
_family="L2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                family="MLT1J"
1.1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       family="LTR33"
ement(14677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     family="L1PA4"
[ement(17000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           _family="L1PB1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               _family="MLT1B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       family="L2"
lement(6654.
                                                                                                                                                                                                                                                    _family="L1P4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       family="L1P4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               family="L2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          family="L1MB4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                family="MIR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       family="MIR3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              family="MBR2"
ement ("""
                                                                                                                                                                                                                                                                                                                                                                                                                                               family="L1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     family="MIR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    family="MIR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7464
Score 1228.2;
                                                                                                                                                                                                                                                                          .29623)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .22307)
DB 9;
Length 189230;
```

		ş	1531 CATTITITITAGCCTTCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGAATAG 1590
용 성	466 GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC 525	? B 4	
용 성	526 TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGA 576	D QY	91 ATGITTATCTAACCTGACAGITGCAGITTTCACCCATGAMAGCATTAGTTGAAAGTAC 54 TITAATTTTAATCTCACATTTCTAGTTTT-ACTCAGAGAAATCATTAATTTGAAAGTAC
B 8	GCTTCACGGGGCTGACGTGCATCGTTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGT 	B &	51 AATGITIGGATICTCCITGATATIACCAATACATTTCCCTGTTATCTTCCACTGAATCT
\$ <b>\$</b>	GCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCT	QY dd	1711 TTCCTACTGAACACTTTTTC-TGCACTTTTCATTGTAATAAAAGGAGTTGCTGTCCACAA 1769
δ. <u>β</u>	ATTUGGUATGGAUAGGAACACCTTCTCTCUTCTACACCTCAACCT CCTCTTCCTTAGGGGCCACACTTATATGTTCGCCGCTTACGCCTCAT	g &	1770 CCCTAAAA-CTCTTCTTTATACTTGTTTCCTACCTGATAGTATCAAAAAGGAAGATTCCT 1828 
₹ ₽		Q	
₽ &	755 CARTATCCGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTAT 814	§ §	1889 TATCTTTCTCTCGGACTATGTTCACCTAAAAACCATGTTCCCTTCTATGATTAGGGGTAT 1895
용 왕	815 AGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCAT 874	문 4	
₹ 9	875 CTGGTACCACTGCCGCCCCAGATACCTGTCATCGGTCATGTGTGTG	B &	
유 성	935 CCTGTCCCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGC 994	B &	O AGICIAGAMAIIGGIIIIAIGAMAAGUCIIIGIGIATIIGICANNACAIGGIINAC
. Q	TGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATG	g Qy	2067 ATGTTGGCCTTGGTTTCTAGTAAGACAATGTGGCCCCTTCCCCTTCAGAAACTGGTAAG 2120 19132 ATGTTGGCCTTGGTTTCAAGTTAAGATAACCACAGCTCCTTCCCCCTTCAGAACTAGTAAG 1919:
<i></i>	18070 TGATTCTGTTTGGTGTGAAACATCAGAITTCATCACAGTCACATGGCTGATTTTTTTTATG 18129 1055 TGTGGTTCTGTGGGGTCCAGCCTGGTCCTGGTGGTGAGATTCTCTGTGGATCCCGGAA 1114	ş	2127 TTCTTATTTAGCTCTTCCTGGACTAATGAACTAGTGAGGAGCCTATAAATATGTCCCACC 2186
9	18130 TGTGGTTCTTGCGGGTCCAGCCCGGTCCTGCTGGTCAGGATCCTTTGTGGATCCCGGAA 18189	& E	2187 AGTITCATTTTGGCCATTGGAAAACCTCAATÄTTGATTTTAAAGTGGAAATTATCTTGAAA 2246
유 성	1115 GATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTG 1174	망	51
₹ ₹	1175 TGGCCTGCCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGT 1234	₽ <b></b> ₹	
\$	CTTATTTTGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAA	유 왕	2307 TTTTGTATAAATTGTTCTGATTGTAACTTTCAGTTAGTTTATGGCTGTTTAC-ATGAGA 2365
8 8	1295 CCCATCATTTACTTCCTCGCCCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAA 1354	유 성	2366 AGCAAAACTGAAAACATCTGACCTTTCCATGACAATCTCAATTATGGTATCTGGATAATA 2425 
& B	18356 CCCCAFTATTYACTTCTTCATGGGCTCCTTTAGGCAGCTTCAAAACAGGAAGACTCTCTA 18415 1355 GCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGTGGACGTT 1414	Q	ACTTACAGTTGGTACAGAATTCTGATACATGCTGTGACATACAT
DЬ		0 B	19490 GCTTAGCATTGCAACATAATTCTGATACATGCTGCAATACAAGTGCAACCTTGAGAACCAT! 1954 2486 TGCTAAGGAAAATAAGGCAGACGCCAAACAATATTGTAAGTTCAAATTCTATGAGGTATC 2545
3 8	1415 TCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGCTGAGCAGCAGTGAGGAAGCAGCCTCTGC 1474	B 5	50 GTGCCAGACAAAAGAACAATATTGTAAGTTCAAATTTTTCCAGTATCT
Ş		문왕	2546 CAAATTAGGAAATTCTTGAACACAGAAAATAAATTAGGAGGATCCTGGTGCTG 2598

```
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 14
AX647081
LOCUS
                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                               & 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                         S
                                                                                              망
                                                                                                                                                  ક
                                                                                                                                                                                              占
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 1195; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CDS
        591
                                                                                                              531
                                                                                                                                                                822
                                                                                                                                                                                                                       471
                                                                                                                                                                                                                                                                      762
                                                                                                                                                                                                                                                                                                                              411
                                                                                                                                                                                                                                                                                                                                                                                702
                                                                                                                                                                                                                                                                                                                                                                                                                                 351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 231 GAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             171 TCCAGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AX647081
Sequence 1273 f
AX647081
AX647081.1 GI:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Suwa,M., Asai,K., Akiyama,Y. and Aburatani,H.
Guanosine triphosphate-binding protein coupled receptors
Patent: EP 1270724-A 1273 02-JAN-2003;
National Institute of Advanced Industrial Science and Technology
(JP); Center for Advanced Science and Technology Incubation, Ltd.
(JP)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens (human)
CACTGCCGCCCCCAGATACCTGTCATCATCATGTGTGTCTCTGGGCCCTGTCC
                                 CACTGCCGCCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCCTGTCC
                                                                                                           AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC
                                                                                                                                                                                                                                              CGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
                                                                                                                                                                                                                                                                                                                                                       GCCGACTTCCTCTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAACTGACACCAATCAACGGACGTGAGGAGGACTCCTTGCTACAAGCAGACCCCTGAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCATGGGTCATCAGACTGGGGTTTTCTGAGCATGGATTCAACCATCCCAGTCTTTGGGTACA
                                                                                                                                                                                                                       CGCCATCCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="unnamed protein product"
/codon start=1
/codon start=1
/proteIn_id="CAD69666.1"
/broteIn_id="CAD69666.1"
/db_xref="cd1:28800069"
/translation="MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTG
/translation="MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTG
/translation="MDSTIPVLGTELTPINGRETPCYKQTLSFTGLTCIVSLVALTG
/translation="MDSTIPVLGTELTPINGRETPCYKQTLSFTGLTSILEMMF
/translation="MDSTIPVLGTRPRYLSSVACLLARLSLLEMMF
/translation="MDSTIPVLGTRPRYLSSVACLLARLSLLEMMF
/translation="MDSTIPVLGTRPRYLSSVACLLARLSLLEMMF
/translation="MDSTIPVLGTRPRYLSSVACLLARLSLLEMMF
/translation="MDSTIPVLGTRPRYLSSVACLLARLSLLEMMF
/translation="MDSTIPVLGTRPRYLSSVACLLARLSLLEMMF
/translation="MDSTIPVLGTRPRYLSSVACLLARLSLLEMMF
/translation="MDSTIPVLGTRPRYLSSVACLLARLSLLEMMF
/translation="MDSTIPVLGTRPRYLSSVACLLARLSLLEMMF
/translation="MDSTIPVLGTRPRYLSSVACLLARLSLEMMF
/translation="MDSTIPVLGTRPRYLSSVACLLARLS"
/translation="MDSTIPVLGTRPRYLSSVACLLARLSLEMMF
/translation="MDSTIPVLGTRPRYLSSVACLLARLS"
/translation="MDSTIPVLGTRPRYLSSVACLLARLS"
/translation="MDSTIPVLGTRPRYLS"
/translation="MDSTIPVLGTRPRYLS"
/translation="MDSTIPVLGTRPRYLS"
/translation="MDSTIPVLGTRPRYLS"
/translation="MDSTIPVLGTRPRYLS"
/tra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    201. .1169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GI:28800068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              45.6%; Score 1192.6; DB 6; 99.7%; Pred. No. 1.2e-282; tive 0; Mismatches 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1369 bp D
from Patent BP1270724.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1369;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        04-MAR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                      821
                                                                                                                                                                                                                                                                                                                                                                             761
                                                       941
                                                                                                              590
                                                                                                                                                                   881
                                                                                                                                                                                                                                                                                                                              470
                                                                                                                                                                                                                                                                                                                                                                                                                                    410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          230
        650
                                                                                                                                                                                                                     530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
```

TITLE JOURNAL FEATURES SOURC	VEKSJON KEYWORDS SOURCE ORGANISM REFERENCE AUTHORS	RESULT 15 AX429467 LOCUS DEFINITION ACCESSION	B &	B 8	g 49	D Qy	g Q	g Qy	B 8	B 8	D Q	D Q	B &	D Qy
Ce	Homo sap Homo sap Homo sap Eukaryot Mammalia 1	AX429467 Sequence 3 from Paten AX429467	1602 ACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGA 1660 	1542 GCCTTCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTA 1601 	1482 GACAGGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATATGCATTTTTCTTA 1541	1422 GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA 1481 	1362 CTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAG 1421	1302 ATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT 1361 	1242 TGTCATGTGCATCTAGTTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC 1301	1182 CCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT 1241	1122 CTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTG 1181	1062 CTCTGTGGGTCCAGCCTGGTCCTGCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCG 1121	1002 GTTTGGTGTAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTT 1061 	942 CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT 1001

		,	•	•	•	• •	,	• •	• •		•					0 \	Query Best I Matche
1422 8458	1362 8398	1302 8338	1242 8278	1182 8218	1122 8158	1062 8098	1002 8038	942 7978	882 7918	822 7858	762 7798	702 7738	642 7678	582 7618	522 7558	462 7498	Match Local S les 1107
GAAACCC         GAAACCC	CTCCAGA	ATTTACTTO	TGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGC	CCCTTTG	CTGACCA	CTCTGTGGGTCC	GTTTGGTG	CIGCIGC	CACTGCC	AGCATGC	CGCCATC	GCCGACTTCO          GCCGACTTCO	CTCCTGGGCTGC	ACGGGGC	GAACTGACI         GAACTGACI	TCATGGGTCA	imilari;
CCTGGAGCT	GGGCTCTG	CTTCGTGGG	TGCATCT.	CTTTGGCATTCAGTGGG	CCAGGCTGTA           CAGGCTGTA	×=×	TGAAAC        TGAAAC	GGAGTATO        GGAGTATO		rgagege	CCATCTC		GCTGCCG	TGACGTGCA	ACCAA1	CATCAG	42 ty 99 ervativ
GTCGGGAA         GTCGGGAA	3CAGGACACGC          3CAGGACACGC	GGCTCC	AGTTTCC	TGGGCC	GTACGTGACCATCCTC 	SCCTGGTC	GTCAGATTT	CCTGGAG	CCCAGATAC	CATCAGC	CAAAATC	RCCTTAGCGG	CATGCGC	CATCGTT	CAACGGA	ATCAGACTGGGG           ATCAGACTGGGG	.2#; S
GCAG	ACGCCTGAGO          ACGCCTGAGO	TTAGGC	ATTTTCC	3CCCTGTTTTCC           3CCCTGTTTTCC	ATCCTCC	3 <u>—</u> 3	ITCATTACAATO            TCATTACAATO	rggatgt         rggatgt	CTGTCAT	ACCGAGO ACCGAGO	TCAGT	GCCACA	CCGCATGCGCAGGAACGCTGTCTC	recerre	ACGGACGTGAGGAGAC                  ACGGACGTGAGGAGAC	FTTCTGAGO	core 11 red. No Misma
ATTGGAGCA          ATTGGAGCA	AGGTGGA	CTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT 	rerccec	CCAGGATCCACO	CCTCACAGTGCTGGTCTTCC	CTGGTCAGGATTCTCTGTGGATC	<u>6—6</u>	CTGGAGTGGATGTTCTGTGACTTC	CTGTCATCGGTCATGTGTGT 	CTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGG	CTGTGATGACO	CCACATTATATGTTC              CACATTATATGTTC	CTGTCTC	TCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGG	AGACTCCTTGCT	GCATGGATTCAAC             CATGGATTCAAC	04; DB 1.2e-
AGTGAGGAA(         AGTGAGGAA(	ggtggatgaaggt          ggtggatgaaggtv	AAATAGG         AAATAGG	TCTTAAC        TCTTAAC	CCACCTG         CCACCTG	GCTGGTC	TCTCTGT	Greecre	CTTCCTG	GIGIGICO GIGIGICO GIGIGICO	GTCCATC	SACCTITCO	TTCGCCGTTA	CCATCTACATCCTC	GACAGGA         GACAGGA	TTGCTACAAG           TGCTACAAG	TTCAACC	6; Les 260; 5; Is
AGAACCTCTGO          AGAACCTCTGO	STGGAGGGTGGCTTC            STGGAGGGTGGCTTC	CAGAACC	AGCAGTG        AGCAGTG	CTGGATTGGAAAGTCTTATTT            CTGGATTGGAAAGTCTTATTT	TTCCTCCT		GCTGGTTTTTTAI             GCTGGTTTTTTTAI	CCTGTTTAGTGGTGC               CCTGTTTAGTGGTGC	TCCTGCTCTGGGC	CIGIGGO	CCCTACT	ନ୍ଲ=ନ୍ମ	ATCCTCA	AACGCGG         AACGCGG	CAGA	CATCCCAGTO	ngth 86
CTGCCCTG	GGCTTCC	TGAAGCT	CAACCC	AAGTCTT        AAGTCTT	CIGIGG         CIGIGG	CCGGAAGATGCC             CCGGAAGATGCC	<u>G</u> G	9—9 9—9	sesccorer	GCCATCTGGTAC            GCCATCTGGTAC	CCTACTTTATAGGC	CCTCATCAATATC	CAACCTGGTO	rrerect	CCCTGAG	OTTGGG	22; 0; G
2 - 1 2 - 1 2 - 1	CTCAG 1	8 1	CATC B	8 P	CTG 8	გ—ც	FIGGIT 1	TTCT 8	2—2 7—9	7 8	CTA 8	AIC 7	2606 7 2606 7	7 6	CTTC 5	TACA 5	арв
481 517	421 457	361 397	301	241 277	181 217	.121	061 097	001 037	41 977	81 917	21 857	61 797	01 737	41 677	81 617	21 557	0;

8 8 8 8 8 8

8

음 성 음

**성 & 성** 

B 8 B 8

음 성

음 성 음

음 성 음

**8 8 8** 

8578 GCCTTCTGCCTCAGAAATGTCTCAGGGTCCCC 8609	8578	ఠ	
1542 GCCTTCTGCCTCAGAAATGTCTCAGTGGTCCC 1573	1542	ફ	
8518 GACAGGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTA 8577	8518	Дb	
1482 GACAGGACTTTGAGAGCAATGCTGCCCTTGCCACCCTTGACAATTATATGCATTTTTCTTA 1541	1482	Ş	

Search completed: October 29, 2004, 13:55:27 Job time: 10834 secs

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Run
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     on:
   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                         2618
1529.6
1143.8
11483.8
11483.8
11483.8
11483.8
1192.6
1104.2
11094.2
11094.2
11013.6
11013.6
11013.6
11013.6
1012.2
969
                                                                                                                                                                                                                                                                            Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                seq length: 0
seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-867-570-1
2618
1 aacaattgccgcga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                            Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          October 29, 2004, 09:21:52; Search time 1225 Seconds (without alignments)
11218.763 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4134886 seqs, 2624710521 residues
  Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Geneseq_23Sep04:*
geneseqn1980s:*
geneseqn1990s:*
                                                                                                                                                                                                                                                                                                                                                                                                                            geneseqn2003bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                        geneseqn2002as:*
geneseqn2002bs:*
geneseqn2003as:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            geneseqn2000s:*
geneseqn2001as:*
geneseqn2001bs:*
                                                                                                                                                                                                                                                                                                                                                                                       geneseqn2003cs:*
geneseqn2003ds:*
geneseqn2004s:*
                                                                                                                                                                                                                                                                            Length
  2618
1997
20040
20040
2040
1369
8622
1400
1400
1400
1369
1604
1604
1604
1604
1604
1604
1604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GenCore version 5.1.6 (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                             BB
                                                                                                                                                   8 6 6 10
                                                                                                    8
6
10
                                                                                                                                                                                                    12
12
                        ADH08519
ADC86820
ADC86823
ABK52823
AAD3751
ABZ42595
ADH08534
AAD33752
ABZ42602
                                                                                                                                                                                                                          ABK52822
ADD18121
AAD33744
                                                                                                                                                                                                                                                                            IJ
                                                                                                                                                                                                                                                                                                                 SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8269772
Add18121 Human G-p
Aad33714 Human Mrg
Add186519 DNA: seque
Ado36620 Human mas
Adc86620 Human GPC
Abk52823 Genomic D
Aad33751 Human Mrg
Abz42595 Human GPC
Aad33752 Human GPC
Aad33752 Human Mrg
Abz42602 Human Mrg
Abz42602 Human Mrg
Abz42602 Human Mrg
Abz42602 Human GPC
Aad23911 Human GPC
Aad29811 Human GPC
Aad29811 Human GPC
Aad29812 Human GPC
Aad29812 Human GPC
Aad24603 Human GPC
                                                                                                                                                                                                                                                                            Description
                                                                                                                                                                                                                                                   Abk52822 cDNA enco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2618
```

88414444444444444444444444444444444444																																		
exp exp ant	P-I	Wei	Id)	25- 31-	10-	02-	WO.	Key	Homo	bun sec	cĐ	27-	ABI	RESULT 1 ABK52822 ID ABK		ů.	4.1	44	4 6	39	38	36	ω ω 4 7	33 6	31	2 2 6	27 28	2 2 6 5	24	22				
disorder chara expression of antibodies. Claim 4; Fig 1	WPI; 2002-46 P-PSDB; AAUS	M, Zhao	(PEKE ) PE CORP NY.	25-OCT-2000; 31-MAY-2001;	10-OCT-2001;	02-MAY-2002.	-MAY-2002.	-MAY-2002.	-MAY-2002.	-MAY-2002	WO200234914-A1	W.Z.	no sapiens	Human; G-protein human therapeutic sequence database chromsome 3.	cDNA encoding	27-AUG-2002	ABK52822;	52822		829.8	829.8	829.8	833	833 333	833	833	834.6 834.6	837.8	837.8	856.2	938.6 856.2	964.2 949.8	964.4	965.8
lated G-protein coupled receptor peptide useful for treating characterized by absence of, in appropriate or unwanted m of the receptor protein, and as immunogens to raises.	9 0	Ó		2000US-00695045. 2001US-00867570.	2001WO-US031592		A1.	Location/Qualifier 4471460 /*tag= a /product= "Human G	٠	9 a	human G-protein couple	(first		standard;		:	31.7 969 31.7 969 31.7 969 31.7 969	7.7				·		· • •		<b>.</b> .	. 7 '9	ω <u>ω</u>	·	ο •				
		Woodage										entry)		cDNA;		969		969	969	969	969	969	969 969	969	969	997	969 997	969	996	969				
		Ħ,						# "F		n; c umar		۲,		2618												12 B				12				
		Di Francesco V, Beasley			2.			B protein coupled		upled; receptor; GPCR; human prot rotein; query sequence; search; q non-human transgenic animal; gen				18 BP.	ALIGNMENTS	WHD 2 / 4 7 4	AAS07944	AAZ10072 AAD20943	ADO30081	ACC44768	ABT04874	AAZ10069	AAA12205 ADC17725	ADC1//29 AAZ10071	AAA12208	ADN42289 ACC44771	AAZ10068 ADI16635	AAZ10067	ADO44605	ADF29104				
	h L	ey EM;						receptor (GPCR)"		<pre>protease; ch; gene; ss; gene therapy;</pre>	R).					Title III	Human	Aaz10072 Human dor Aad20943 Human G p	Human	Acc44768 Human G p	_	Human	Aaa12205 Human G p Adc17725 Human TGR	uman (	^ ^ /	Adn42289 Human cDN Acc44771 Human G p	luman luman	Aaa70342 Human nov Aaz10067 Human dor	Humar	Adf29104 Human GPC Aah49507 Human GTP				

X666666666666666888

```
Query Match
Best Local S
Matches 2618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention relates to a new G-protein coupled receptor (GPCR) peptide. The invention is useful for identifying a modulator of GPCR and for treating a disease or condition mediated by a human protease. The invention is also useful as models for the development of human therapeutics, for identifying therapeutic proteins, as targets for development of human therapeutic agents, and as query sequence to perform a search against sequence databases to, for e.g., identify other family members of related sequences. The vector of the invention is useful for producing a GPCR protein or peptide, for conducting cell-based assays involving the GPCR protein or its fragment, for identifying GPCR protein mutants whose functions are affected, and to produce non-human transgenic animals. The present nucleic acid sequence represents the human G-protein coupled receptor (GPCR) gene located on chromsome 3. This sequence encodes the human G-protein coupled receptor (GPCR) protein coupled receptor (GPCR) protein coupled receptor (GPCR) protein coupled receptor (GPCR) gene located on chromsome 3. This sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2618;
                                                      661
                                                                                                                          601
                                                                                                                                                                                           541
                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                      199
                                                                                                                                                           601
                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                     721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGTCTGTAGAGCTATTAGCCAGTTAAACCCATTTCCTTCATAAATTTCCCAGTCTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CACCAGGATTGGAAGCTTCCTGAGGCCTCCCCAGAAGCAGAAGCTGCTATGCTTCTTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCTCCCTCTCTTACTCCTGCTCTCACCATGTGAGACGCCTCGCTCCCCCCTTTGCCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AACAATTGCCGCGAATTCGGCACGAGATGAAATCTAGTTGTTTAAAAGCGTGTAGCACCT
GCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCATCTCCAAAA
                                                                                 TTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGGCTCCTGGGCTGCCGCATGC
                                                                                                                                                                                             GACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCG
                                                                                                                                                                                                               GACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCG
                                                                                                                                                                                                                                                                GGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACG
                                                                                                                                                                                                                                                                                   GGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACG
                                                                                                                                                                                                                                                                                                                                    TGGGATGTCAAACAGGATAAAGAAGAATGGAAAGCAAATCCTCATGGGTCATCAGACTGG
                                                                                                                                                                                                                                                                                                                                                      TGGGATGTCAAACAGGATAAAGAAGAATGGAAAGCAAATCCTCATGGGTCATCAGACTGG
                                                                                                                                                                                                                                                                                                                                                                                                                           TCCACCAGAAACCAGAAATAAAAAGAATCCCACTGATGTGGTACATAGAAGCCACTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATCCCAAGGTGCTTTCCTGCTGTCTTCCAGTCTCCTGCTGGTGTCTCCCAGTGTCTCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CACCAGGATTGGAAGCTTCCTGAGGCCTCCCCAGAAGCAGAAGCTGCTATGCTTCTTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AACAATTGCCGCGAATTCGGCACGAGATGAAATCTAGTTGTTTAAAAGCGTGTAGCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGAGCTATTAGCCAGTTAAACCCATTTCCTTCATAAATTTCCCCAGTCTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ₽,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 2618;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>ი</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2618;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                        720
                                                                                                                          660
                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60
                                                                                                                                                                                               600
                                                                                                                                                                                                                             600
                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                         5
                                                                                               S
                                                                                                                                         밁
                                                                                                                                                                    S
                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                  닭
                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                    片
                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               용
                                                                        닭
                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1321
                                                                                                                                                                                                                                                                                                                                                                                                                         1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1081
                                                                                                                                                                                                               1621
                                                                                                                                                                                                                                                                                  1561
                                                                                                                                                                                                                                                                                                                                                                                       1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAG
   CCTGATAGTATCAAAAAGGAAGATTCCTTATTAATCTGTCAGACTATGTTCCCCTGAAAA 1860
                                                                                                                                                                                                                                   CACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGATTCTCCTTGATATTACCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCTGTCATCGGTCATGTGTGTCCCTGCTCTGGGCCCTGTCCCTGCTGCGGAGTATCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCCCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCCTCAGTCCTGTGATGACCTTTCCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCATCTCCAAAA
                                                                                                          ATTGTAATAAAAGGAGTTGCTGTCCACAACCCTAAAACTCTTCTTTATACTTGTTTCCTA
                                                                                                                                                            ACATTITCCCTGTTATCTTGCACTGAATCTTTCCTACTGAACACTTTTTCTGCACTTTTC
                                                                                                                                                                                                               CACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGATTCTCCTTGATATTACCAAT
                                                                                                                                                                                                                                                                                TGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCTTCTGCCTCAGAAATG
                                                                                                                                                                                                                                                                                                                                                                          TGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTTCTTAGCCTTCTGCCTCAGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                           GAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACAGGACTTTGAGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                GAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACAGGACTTTGAGAGACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCCTGGAGCTGTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCATCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCTTTGGCATTCAGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCATCCTCACAGTGCTGGTCTTCCTCTCTGTGGCCTGCCCTTTGGCATTCAGTGGG 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCCTGCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCTGTGGGTCCAGCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTTCCTCTGTGGGTCCAGCCTGG 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCIGICATCGGTCATGTGTGTGCTGCTGGGGCCCTGTCCCTGCTGCGGAGTATCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1020
                                                                                                                                                                                                                                                   1680
                                                                                                                                                                                                                                                                                                                       1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                           1800
                                                                                                                                                                                                                                                                                     1620
                                                                                                                                                                                                                                                                                                                                                        1560
                                                                                                                                                                                                                                                                                                                                                                                                                            1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             900
```

S

밁 S 망 S

S

Ś 멍 8 밁 S 밁 δ 맑 S 멍 S 뮍 5 밁 5 밁 Ś 뮍

```
RRESULT 2
ADD181
ID ADD19
XX
AC ADD19
XX
A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유 &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                              colour blindness; retinal pigmentosa; asthma; depression; schizophrenia;
sleeplessness; hypertension; anxiety; stress; renal failure;
cardiovascular disorder; neural disorder; oncology disorder;
                                                                                                                                                                                                 G protein coupled receptor; GPCR; signal transduction pathway; G Alzheimer's disease; Parkinson's disease; diabetes; dwarfism;
                                                                                                                                                                                                                                                                                       Human G-protein coupled receptor (GPCR) DNA sequence
                                HOMO
                                                                                                                                                                                                                                                                                                                                                                                                        ADD18121;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADD18121 standard; DNA; 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1921
                             sapiens
                                                                                         disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGTTCTGCTACCTCTAAATTCCATTGAATTCTCAGATATAAAGCAAAATAATGACCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTAGGAGAATTCTTCATACTTCCAGGTTTTGTATAAATTGTTCTGATTGTAACTTTCAGT 2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTTTAAAGTGGAAATTATCTTGAAAACCATTTATTATTATTCACTTACAGATTCTTTCAGTT 2280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CIGTCATTTGTCCACAGCATGGTGACATGTTGGCCTTGGTTTCTAGTAAAGACAATCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGTCATTTGTCCACAGCATGGTGACATGTTGGCCTTGGTTTCTAGTAAAGACAATCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACATACATGAACCTGGAAATATTGTGCTAAGGAAAATAAGCCAGACGCCAAACAATATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCTCAATTATGGTATCTGGATAATAACTTACAGTTGGTACAGAATTCTGATACATGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TAGTTTTATGGCTGTTTACATGAGAAGCAAAACTGAAAAACATCTGACCTTTCCATGACAA 2400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTAGGAGAATTCTTCATACTTCCAGGTTTTGTATAAATTGTTCTGATTGTAACTTTCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGAGGAGCCTATAAATATGTCCCACCAGTTTCATTTTGGCCATTGGAAAACCTCAATATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCCCTTCCCCTTGAGAACTGGTAAGTTCTTATTTAGCTCTTCCTGGACTAATGAACTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCCCTTCCCCTTGAGAACTGGTAAGTTCTTATTTAGCTCTTCCTGGACTAATGAACTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGAGAGATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGAGAGATTCTCCCTTCATAAAAACAGTCTTAGAAATTGGTTTTATGAATAGCCCTCTC 2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCATGTTCCCTTTTATGACTGGAGGCATTACTGCAGTTGGAAGCTCAATTCTTAATAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTTTAAAGTGGAAATTATCTTGAAAACCATTTATTATTCACTTACAGATTCTTTCAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGTTCTGCTACCTCTAAATTCCATTGAATTCTCAGATATAAAGCAAAATAATGACCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCATGTTCCCTTTTATGACTGGAGGCATTACTGCAGTTGGAAGCTCAATTCTTAATAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACATACATGAACCTGGAAATATTGTGCTAAGGAAAATAAGCCAGACGCCAAACAATATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TAGTTTTATGGCTGTTTACATGAGAAGCAAAACTGAAAACATCTGACCTTTCCATGACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGAGGAGCCTATAAATATGTCCCACCAGTTTCATTTTGGCCATTGGAAACCTCAATATTG
                                                                                                                                                                                                                                                                                                                                                (first
                                                                                         neuroprotective;
                                                                                                                                                                                                                                                                                                                                                entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCTTCATAAAAACAGTCTTAGAAATTGGTTTTATGAATAGCCCTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ВP
                                                                                   gene
                                                                                      therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2618
                                                                                                                                                                                                                                                                                       Seq ID7
                                                                                         ds
                                                                                                                                                                                                                               protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1980
```

```
문
                       Ś
                                                         밁
                                                                          र्
                                                                                                            밁
                                                                                                                                     Ś
                                                                                                                                                                    밁
                                                                                                                                                                                        S
                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                         This invention relates to novel G protein coupled receptors (GPCRs) and CC their encoding nucleotide sequences. Many medically significant biological processes are mediated by proteins participating in signal transduction pathways involving G proteins. GPCRs are one of the largest receptor superfamilies known. These receptors are biologically important and malfunction of these receptors results in diseases such as Parkinson's, diabetes, dwarfism, colour blindness, retinal pigmencosa and asthma. They are also involved in depression, schizophrenia, sleeplessness, hypertension, anxiety, stress, renal fallure and other cardiovascular, neural, oncology and immune disorders. A modulator of the GPCRs of the invention may have neuroprotective activity whilst the sequences of the invention may be useful for gene therapy. The invention may also be useful for manufacturing a medicament for preventing, treating or ameliorating a medical condition. The present sequence is the DNA sequence encoding a human GPCR of the invention.
                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                               Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-AUG-2001;
12-SEP-2001;
30-OCT-2001;
26-NOV-2001;
06-DEC-2001;
06-FEB-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New nucleic acid, useful for manufacturing a medicament for preventing, treating or ameliorating a medical condition e.g., neural disorder.
                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Feder JN,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-AUG-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO2003016478-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (BRIM )
                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2003-278558/27
                                                                                                                                                                     193
                                                                                                                                                                                                 516
                                                                                                                                                                                                                             133
                                                                                                                                                                                                                                                                                   1674;
373
                           696
                                                         313
                                                                                   636
                                                                                                             253
                                                                                                                                           576
                                                                                                                                                                                                                                                      457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADD18024.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BRISTOL-MYERS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ
                                                                                                                                                                                                                          ACGATAAGGGGTCATCAGACTGGTGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTG
                                                                                                                                                                                                                                                                                                                                         1997
                 GTCGCGGCCGACTTCCTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATC
                                                         CTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTG
                                                                      CTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTG
                                                                                                                              AGCTTCACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTG
                                                                                                                                                                     GGTACAGAACTGACAACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTG
                                                                                                                                                                                        GGTACAGAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTG
                                                                                                                                                                                                                                          AATCCTCATGGGTCATCAGACTGG-GGTTTCTGAGCATGGATTCAACCATCCCAGTCTTG 515
 GTCGCGGCCGACTTCCTCTCCTCTGCTTCCAGATTATAAATTGCCTGGTGTACCTCAGT
                                                                                                                AGCTTCACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ramanathan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2001US-0313658P.
2001US-0318675P.
2001US-0340703P.
2001US-0333417P.
2001US-0338367P.
2002US-0355596P.
                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ID NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2002WO-US026017
                                                                                                                                                                                                                                                                                                                                        BP; 459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     169. .1215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       product= "Human G-protein coupled receptor"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7;
                                                                                                                                                                                                                                                                                               58.4%;
                                                                                                                                                                                                                                                                                                                                        A; 501 C; 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                251pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SQUIBB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gopal
                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                               Score 1529.6;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ß
                                                                                                                                                                                                                                                                                                                                         ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mintier
                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                         ;
                                                                                                                                                                                                                                                                                   139;
                                                                                                                                                                                                                                                                                                             DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                        0 U;
                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                           0 Other;
                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                   21;
                                                                                                                                                                                                                                                                                                               1997;
                                                                                                                                                                                                                                                                                  Gaps
                             755
                                                                                                                                                                                                 575
                                                                                                                                                                                                                             192
                                                          372
                                                                                     695
                                                                                                                312
                                                                                                                                            635
                                                                                                                                                                       252
```

S

756

AATATCCGCCATCCCATCTCCAAAA----

---TCCTCAGTCCTGTGATGACCTTT

803

```
1818
                                                                                                                                                                                                                                   1213
                                                                                                                                                                                                                                                           1518
                                                                                                                                                                                                                                                                                  1153
                                                                                                                                                                                                                                                                                                         1458
                                                                                                                                                                                                                                                                                                                                 1093
                                                                                                                                                                                                                                                                                                                                                                                 1033
                                                                                                                                                                                                                                                                                                                                                                                                        1338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1044
                                                                                                                                                                                                           1578
                                                                                                                                                                                                                                                                                                                                                                                                                                                      1284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               924
                                                                                                                                                                                                                                                                                                                                                                                                                                973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       433
                                                                                                                                                                                                                                                                                                                                                                              AGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCA-----GCGTCAA 1337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GATIGGAAAGTCTIATITIGICATGIGCATCTAGITTCCAITITICCIGICCGCICTTAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTCCTCCTCTGTGGCCTGCCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGCTCTGGGCCCTGTCCCTACTGCTGAGCATCTTGGAAGGGAAGTTCTGTGGCTTCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGCTCTGGGCCCTGTCCCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | CCCTACTTTATAGGCCTAAGCATGCTGAGCGCCCATCAGCACCGGAGGGCTGCCCTGTCCATC
GGAAGATTCCTTATTAATCTGTCAGACTATGTTCCCCTGAAAATCATGTTCCCTTTTATG
                                                                                                                                                AGTCTGACAGTACAATGTTTGGATTCTCCCTTGATATTACCAATACATTTTCCCTGTTATC
                                                                                                                                                                                      GGTCTTCGAATAGATGTTTATCTAACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATT
                                                                                                                                                                                                GGTCTTCGAATAGATGTTTATCTAACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATT
                                                                                                                                                                                                                                                                                                                                 GAAGGTGGAGGGTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAG
                                                                                                                                                                                                                                                                                                                                                GAAGGTGGAGGGTGGCTTCCTCAGGAAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GATTCTGATGTCTTATTTTGTCATATTCATCCAGTTTCAGTTGTCCTGTCATCTCTTAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCTCCAGGGGTCTGCCACTGACCAGGCTGTACCTGACCATCCTGCTCACAGTGCTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTTAGTGATGGTGACTCTGGTTGGTCAGACATTTGATTTCATCACTGCAGCGTGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTTAGTGGTGCTGATTCTGTTTTGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGTGGCCCATCTGGTATCGCTGCCGCCGCCCAGACACCTGTCAGCGGTCGTGTGTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGTGGCCCATCTGGTACCACTGCCGCCGCCCCAGATACCTGTCATCGGTCATGTGTGTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AACTTCTTCTGTTCCATCTCCATCAACTTTCCCTAGCTTCTTCACCACTGTGATGACCTGT
                                                                                                                                    AGTCTGACAGTACAATGTTTGGATTCTCCTTGATATTACCAATACATTTTCCCTGTTATC
                                                            1817
                                                                                                                                                                                                                                                                                                                                                        1457
                                                                                                                                                                                                                                                                                                                                                                                                        1397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            732
                                       1512
                                                                                    1452
                                                                                                            1757
                                                                                                                                    1392
                                                                                                                                                           1697
                                                                                                                                                                                    1332
                                                                                                                                                                                                           1637
                                                                                                                                                                                                                                   1272
                                                                                                                                                                                                                                                           1577
                                                                                                                                                                                                                                                                                   1212
                                                                                                                                                                                                                                                                                                          1517
                                                                                                                                                                                                                                                                                                                                 1152
                                                                                                                                                                                                                                                                                                                                                                                  1092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1043
               1877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         492
```

8 8 8 8

음 성 음

경 유

정 유

8

음 성

음 성 음

δ

2 2 2 2 2 2 2

음 성 음

중 유

성 유

8 8 8

```
RESULT 3
AAD33744
IID 3A743
AAD33744
IID AAD33744
AC AAD2
XX AAD2
XX Huma
XX Huma
XX Huma
XX Home
XX H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                    04-MAY-2000;
01-AUG-2000;
03-NOV-2000;
19-APR-2001;
                   Isolated polypeptide, Mrg, which is isolated polypeptide, drg-12, which identifying agonists or antagonists
                                                                                                       WPI; 2002-171346/22.
P-PSDB; AAE21288.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; mas-related receptor; sensory p
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAD33744;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAD33744 standard;
                                                                                                                                                                                                                                                                                                                                                            04-MAY-2001; 2001WO-US014519.
                                                                                                                                                                                                                                                                                                                                                                                                     08-NOV-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200183555-A2
                                                                                                                                                                                                             (CALY )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MrgX1 (mas-related gene)
                                                                                                                                                                                                             CALIFORNIA INST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CATGGTGACATGTTGGCCTTGGTTTCTAGTAAAGACAATCGTGGCCCCTTCCCCCTTGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CATAAAAACAGTCTTAGAAATTGGTTTTATGAATAGCCCTCTCCTGTCATTTGTCCACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AATTCCATTGAATTCTCAGATATAAAGCAAÄATAATGACCTTAGAGAGAGAGATTCTCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACTGGAGGCATTACTGCAGTTGGAAGCTCAATTCTTAATAAGTGAGTTCTGCTACCTCTA 1937
                                                                                                                                                                    됞,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATCTTTGTTTTCCATTTATTATTCACGGAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATCTT--GAAAACCATTTATTATTCACTTACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGTCCCACCAGTTTCATTTTGGCCATTGGAAACCTCAATATTGATTTTAAAGTGGAAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGTCCCACCAGTTTCATTTTGGCCATTGGAAACCTCAATATTGATTTTAAAGTGGAAATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACTGGTAAGTTCTTATTTAGCTCTTCCTGGACTAATGAACTAGTGAGGAGCCTATAAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGAAGATTCCTTATTAATCTGTCAGACTATGTTCCCCTGAAAATCATGTTCCCTTTTATG
                                                                                                                                                                                                                                                    ; 2000US-0202027P.
; 2000US-0222344P.
; 2000US-00704707.
; 2001US-0285493P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first
                                                                                                                                                                  Dong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
328. .1296
/*tag= a
/product= "Human Mrg)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gene; G-protein coupled receptor; drg-12
perception; pain; analgesic; MrgX1; gene;
                                                                                                                                                                  ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       entry
                                                                                                                                                                    Zylka
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2040
                                                                                                                                                                                                               OF TECHNOLOGY.
                                                                                                                                                                    ĭ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ΒP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA
                                                                                                                                                                      Han
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MrgX1
                   a G-protein coupled receptor is also a receptor, useful for treating pain.
                                                                                                                                                                    ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein"
                                                                                                                                                                      Simon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2269
                                                                                                                                                                      3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      protein;
                                                                     an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1692
```

```
Query Match
Best Local Similarity
Matches 1596; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention relates to Mrg (mas-related gene) protein, which is a G-protein coupled receptor and drg-12 protein, which is a receptor. The invention is useful for identifying compounds that bind to it, especially agonists or antagonists. Administration of an agent (e.g. the identified agonist) that increases the expression of Mrg in a mammal may be used for treating impaired sensory perception in a mammal, especially pain. The antagonist may also be useful for treating impaired sensory perception in a mammal. The present sequence is human MrgX1 DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure;
             1242
                                                  1018
                                                                                                                                                                                                                                     1062
                                                                                                                         958
                                                                                                                                                                                                  898
                                                                                                                                                                                                                                                                         838
                                                                                                                                                                                                                                                                                                                                                                                                                                                              882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           462
                                                                                                                                                                                                                                                                                                                                                                                     942
                                                                                                                                                                                                                                                                                                                                                                                                                            718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2040 BP; 455 A; 517 C; 457 G; 611 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                         AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACGGGGCTGACGTGCATCGTTTCCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAACTGACACCAATCAACGGACGTGAGGAGGACTCCTTGCTACAAGCAGACCCTGAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCATGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA
                                                                                                                                                                                                                                                                                                                                                                          CTGCTGCGGAGTATCCTGGAGTGGATTCTTGTGACTTCCTGTTTAGTGGTGCTGATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCAGACTTCCTCTCCTCAGCGGCCGCCTTATATATTCCCTGTTAAGCTTCATCAGTATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCGACTTCCTCTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACGGTGCTGACGTGCATCGTTTCCCTTGTCGGGCTGACAGGAAACGCAGTTGTGCTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAACTGACACCAATCAACGGAACTGAGGAGACTCTTTGCTACAAGCAGACCTTGAGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCAGGGTCACCAGACTAGGGTTTCTGAGCATGGATCCAACCATCTCAACCTTGGACACA
TGTCATGTGCATCTAGTTTTCCATTTTCCTGTCCGCTCTTAACAGCCAGTGCCAACCCCCATC
                                                                       CCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT
                                                                                                                                              CTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTG
                                                                                                                                                                                                                       CTCTGTGGGTCCAGCCTGGTCCTGCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCCATACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCCTGGGCTGCCGCATGCGCAGGAACGCCTTCTCCATCTACATCCTCAACTTGGCCGCA
                                                                                                                           CTGACCAGGCTGTACGTGACCATCCTGCTCACAGTACTGGTCTTCCTCCTCTGTGGCCTG
                                                                                                                                                                                                    CTCTGTGGGTCCAGCCTGGTCCTGATCAGGATTCTCTGTGGATCCCGGAAGATACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Page 113-115;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            56.7%;
91.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          185pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 1483.8; DB 6; Length Pred. No. 0; Mismatches 147; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     357
             1301
                                                                                      1241
                                                                                                                           1017
                                                                                                                                                            1181
                                                                                                                                                                                                                                                                                                                1061
                                                                                                                                                                                                                                                                                                                                                                                       1001
                                                    1077
                                                                                                                                                                                                  957
                                                                                                                                                                                                                                                                           897
                                                                                                                                                                                                                                                                                                                                                     837
                                                                                                                                                                                                                                                                                                                                                                                                                              777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                581
```

S

RESULT 4
ADH08519
ID ADH0
XX
AC ADH0
XX
AC ADH0
XX
AC ADH0
XX
XX

standard;

DNA;

2040 BP

ADH08519 st; ADH08519; 25-MAR-2004

(first

entry)

음 중 음

8 8 8 8

र्ठ

음 성

음 중

음 성

유 성

8 8 8 8 8 8 8 8 8 8

```
5 8 5
                                                                                  В
                                                                                                        S
                                                                                                                              B
                                                                                                                                                      8
                                                                                                                                                                             밁
                                                                                                                                                                                                   5
                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                     멍
                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                              1677
                                                                                                                                                                                                                                                                                                                                                                                                                                             1662
2034
                                            1977
                                                                  2142
                                                                                         1917
                                                                                                                2082
                                                                                                                                       1857
                                                                                                                                                             2022
                                                                                                                                                                                      1797
                                                                                                                                                                                                                                   1737
                                                                                                                                                                                                                                                        1902
                                                                                                                                                                                                                                                                                                       1842
                                                                                                                                                                                                                                                                                                                              1617
                                                                                                                                                                                                                                                                                                                                                   1782
                                                                                                                                                                                                                                                                                                                                                                         1558
                                                                                                                                                                                                                                                                                                                                                                                                1722
                                                                                                                                                                                                                                                                                                                                                                                                                       1498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1302
              ATTGGAA
                                                                                                                                                                                    TCTAGTAAAGACAACTGTGGCCCCTTCCCCCTTGAGAACTTTTAAGTGCTTATTTAGCTCT
                                                                                                     TCTAGTAAAGACAATCGTGGCCCCTTCCCCCTTGAGAACTGGTAAGTTCTTATTTAGCTCT
                                                                                                                                       TTTTATAAAAAGTCTTCCCCTGTCATTTGTTCACAGCATGGTGATATGTTGGCCCTTGGTT
                                                                                                                                                      TTTTATGAATAGCCCTCTCCTGTCATTTGTCCACAGCATGGTGACATGTTGGCCTTGGTT
                                                                                                                                                                                                                                                                                            GACTATGTTCCCCTGAAAATCATGTTCCCTTTTATGACTGGAGGCATTACTGCAGTTGGA
                                                                                                                                                                                                                                                                                                                                           TCTTTATACTTGTTTCCTACCTGATAGTATCAAAAAGGAAGATTCCTTATTAATCTGTCA
                                                                                                                                                                                                                                                                                                                                                                                        CACTITITCTGCACTITTCATTGTAATAAAGGAGTTGCTGTCCACAACCCTAAAACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCTTCTGCCTCAGAAATGTCTCAGTGCTTCAAGGTCTTCAAATAGATGTTTATCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCTTCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GACAGGACTTTGAGAGCAACACTGCCCTTGCCACAATTATATGCGTTTTTCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GACAGGACTTTGAGAGCCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTTCTTA 1541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAAATCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAGAGCCTCTGCCCTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTTACTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT
ATTGGAA
                                                          TCCTGGACTAATGAACTAGTGAGGAGGCCTATAAATATGTCCCACCAGTTTCATTTTGGCC
                                                                                                                                                                                                                                                        AGCTCAATTCTTAATAAGTGAGTTCTGCTACCTCTAAATTCCATTGAATTCTCAGATATA
                                                                                                                                                                                                                                                                                 GACTATGTTCCCCTGAAAATCATGTTCCCTTCTATGACTGGAGGCATTACTGCAGTTAGA
                                                                                                                                                                                                                                                                                                                              TCTTTATACTTCCTTACCTGATAGCATCAAAAAGGAAGATTCCTTATTAATCTCTCA
                                                                                                                                                                                                                                                                                                                                                                            CACTITITICIGCAATITICTTIGIAATAAAAGGAGTTCCTGTACAAAACCCCTAAAAACAC-
                                                                                                                                                                                                                                                                                                                                                                                                                       TCTCCTTGATATTACCAACATTTTCCCTGTTATCTCACACTGAATCTTTCCTACAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                    TCTCCTTGATATTACCAATACATTTTCCCTGTTATCTTGCACTGAATCTTTCCTACTGAA 1721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCTGACAGTTGCGGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAG
                                                                                                                                                                                                                                   AGCTCGATTCTTAATAAGTGAGTTCTGCTATCTCTACATTCCATTGAATTCTCAGATACA
                       2208
 2040
                                                                                                                                                                                                                                     1796
                                                                                                                                                                                                                                                          1961
                                                                                                                                                                                                                                                                                  1736
                                                                                                                                                                                                                                                                                                         1901
                                                                                                                                                                                                                                                                                                                                                                                                                          1557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1197
                                               2033
                                                                                           1976
                                                                                                                  2141
                                                                                                                                         1916
                                                                                                                                                                2081
                                                                                                                                                                                       1856
                                                                                                                                                                                                              2021
                                                                                                                                                                                                                                                                                                                              1676
                                                                                                                                                                                                                                                                                                                                                                            1616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1661
```

```
δ
                                                             S
                                                                                            밁
                                                                                                                     8
                                                                                                                                                밁
                                                                                                                                                                     S
                                                                                                                                                                                                     밁
                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                             B
                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 1596; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                      polypeptide. The MrgD polypeptides are useful as therapeutics or for identifying compounds, i.e. agonists or antagonists, that alter pain perception in a mammal. The compounds are useful for treating impaired sensory perception, e.g. chronic intractable pain or neuropathic pain, promoting wound healing, restoring normal sensitivity following injury, or treating ocular conditions, particularly those associated with pressure such as glaucoma. The Mrg genes or proteins may be used as molecular probes for the detection of cells or tissues related to or involved with sensory perception. The present sequence represents a MrgA (Mrg subfamily) encoding sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New mas-related gene D polypeptides, useful as therapeutics or identifying agonists or antagonists that alter pain perception mammal for treating impaired sensory perception, e.g. chronic pain or neuropathic pain.
                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26-JUN-2002; 2002US-00183116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13-MAY-2003;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (CALY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2004-083025/08.
DB; ADH08520.
                                          598
                                                                                             538
                                                                                                                                                                            642
                822
                                                                                                                        702
                                                                                                                                                 478
                                                                                                                                                                                                       418
                                                                                                                                                                                                                                 582
                                                                                                                                                                                                                                                           358
                                                                                                                                                                                                                                                                                                                                         462
                                                                 762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CALIFORNIA INST OF TECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sted gene D; MrgD; Analgesic; Vulnerary; Ophthalmological;
perception; glaucoma; Mrg; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  덛
AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC
                                           CCCCATACCATCTCTAAAATCCTCTATCCTGTGATGATGTTTTTCCTACTTTGCAGGCCTG
                                                         CGCCATCCCAAAAATCCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
                                                                                                                GCCGACTTCCTCTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATC
                                                                                                                                                   CTCCTGGGCTGCCGCATGCGCAGGAACGCCTTCTCCATCTACATCCTCAACTTGGCCGCA
                                                                                                                                                                  CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
                                                                                                                                                                                                                      ACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGG
                                                                                                                                                                                                                                                            GAACTGACAATCAACGGAACTGAGGAGACTCTTTGCTACAAGCAGACCTTGAGCCTC
                                                                                                                                                                                                                                                                          GAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC
                                                                                                                                                                                                                                                                                                                                 TCATGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTTGGGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                         2040
                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2003WO-US015004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MrgX1
                                                                                                                                                                                                                                                                                                                                                                                                                         BP;
                                                                                                                                                                                                                                                                                                                                                                                                                        455 A; 517 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NO 15; 220pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ×
                                                                                                                                                                                                                                                                                                                                                                               56.7%;
91.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Zylka
                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Σ
                                                                                                                                                                                                                                                                                                                                                                               Score 1483.8;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                        457 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Han
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                        611 T; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Simon
                                                                                                                                                                                                                                                                                                                                                                    147;
                                                                                                                                                                                                                                                                                                                                                                                            DB
                                                                                                                                                                                                                                                                                                                                                                                             12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ፭
!
                                                                                                                                                                                                                                                                                                                                                                                                                        Ç;
                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                         0 Other;
                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                    4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     or in
on in a
c intractable
                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                357
                                           657
                                                                    821
                                                                                               597
                                                                                                                                                                                                        477
                                                                                                                                                                                                                                                           417
                                                                          8
                                                                                                                                                                                      δ
                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        묽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                   $
                                                     밁
                                                                                                          밁
                                                                                                                               S
                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                               1558
                                                                                                                                                                                                                                              1662
                                                                                                                                                                                                                                                                                                                                                                                  1318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1018
                                                                                                             1617
                                                                                                                                                                                                                                                                                                   1602
                                                                                                                                                                                                                                                                                                                                                       1542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTTAGTGGTGCTGATTCT
                                                                          GACTATGTTCCCCTGAAAATCATGTTCCCTTTTATGACTGGAGGCATTACTGCAGTTGGA
                                                                                                                           TCTTTATACTTGTTTCCTACCTGATAGTATCAAAAAGGAAGATTCCTTTATTAATCTGTCA
                                                                                                                                                                               CACTTTTCTGCACTTTTCATTGTAATAAAAGGAGTTGCTGTCCACAACCCCTAAAACTCT
                                                                                                                                                                                                                      TCTCCTTGATATTACCAACACTTTTCCCTGTTATCTCACACTGAATCTTTCCTACAGAA
                                                                                                                                                                                                                                    TCTCCTTGATATTACCAATACATTTTCCCTGTTATCTTGCACTGAATCTTTCCTACTGAA
                                                                                                                                                                                                                                                                          ACCTGACAGTTGCGGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTAGAT
                                                                                                                                                                                                                                                                                                                              GCCTTCTGCCTCAGAAATGTCTCAGTGGTTCCTCAAGGTCTTCAAATAGATGTTTATCTA
                                                                                                                                                                                                                                                                                                                                               GCCTTCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTTCGAATAGATGTTTATCTA
                                                                                                                                                                                                                                                                                                                                                                                  GAAATCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAGCCTCTGCCCTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTTACTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGTCATGTTCATCTAGTTTCTATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCTTTGGCATTCAGTTTTTCCTATTTTTATGGATCCACGTGGACAGGGGAAGTCTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCTGTGGGTCCAGGCTGGTCCTGCTGATCAGGATTCTCTGTGGATCCCGGAAGATACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCTGTGGGTCCAGCCTGGTCCTGCTGGTCAGATTCTCTGTGGATCCCGGAAGATGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGCTGCCACCCCCACACCCTGTCAGCGGTGGTGTGTGTCCTGCTCTGGGCCCTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCTCAATTCTTAATAAGTGAGTTCTGCTACCTCTAAATTCCATTGAATTCTCAGATATA
                                                                                                                                                                 CACTTTTTCTGCAATTTTCTTTGTAATAAAAGGAGTTCCTGTACAAAACCCCTAAAACAC-
                                1961
                                                                                     1901
                                                                                                              1676
                                                                                                                                                                                                                                                                           1497
                                                                                                                                                                                                                                                                                                                                                                                   1377
                                                                                                                                                                                                                                                                                                                                                                                                              1541
                                                                                                                                                                                                                                                                                                                                                                                                                                         1317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 957
```

```
RESULT 5
AD036620
ID 3AD036620
AD036620
AD036620
AC AD03
AC AD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                      Screening for therapeutic agents, useful for treating e.g., urological disorders, comprises contacting a test compound with a Mas-related genux 1 polypeptide and detecting binding of the test compound to the polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           peripheral nervous system disorder; central nervous system disorder; inflammation; respiratory disease; urological disorder; cancer; Mas-related gene X1; MrgX1; G protein-coupled receptor; antianaemic; cytostatic; haemostatic; cardiovascular; cardiant; vasotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               antiarrhythmic; antiarteriosclerotic; CNS; antiparkinsonian; nootro
neuroprotective; cerebroprotective; antiinflammatory; antiallergic;
thyromimetic; immunosuppressive; antiasthmatic; respiratory;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           04-NOV-2002; 2002EP-00024571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22-OCT-2003; 2003WO-EP011686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human mas-related gene X1 (MrgX1) encoding cDNA SEQ ID NO:1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADO36620 standard; cDNA; 2040
                                                                                        Disclosure; SEQ ID NO 1; 124pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO2004042402-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nephrotropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             haematological disease; cardiovascular disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12-AUG-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (FARB )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1917
                                                                                                                                                                                                                                                                                                                                                    2004-400733/37.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BAYER HEALTHCARE AG
                                                                                                                                                                                                                                                                                                                                                                                                           Brueggemeier
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTGGAA 2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGCAAAATAATGTCCTTAGAGACAGACTCTCTCTCATAAAAACACTCTCACCACTATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCTGGACTAATGGACCAGTGAGGAGCCCATAAATGTG----CCCCAGTTCTATTTTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCCTGGACTAATGAACTAGTGAGGAGCCTATAAATATGTCCCACCAGTTTCATTTTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCTAGTAAAGACAATCGTGGCCCCCTTCCCCCTTGAGAACTGGTAAGTTCTTATTTAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTTTATAAAAAGTCTTCCCCTGTCATTTGTTCACAGCATGGTGATATGTTGGCCCTTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTTTATGAATAGCCCTCTCCTGTCATTTGTCCACAGCATGGTGACATGTTGGCCTTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGCAAAATAATGACCTTAGAGAGAGATTCTCCCTTCATAAAAACAGTCTTAGAAATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene therapy; human; gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        328. .1296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          product= "mas-related gene X1 (MrgX1)"
                                                                                                                                                                                                                                                                                                                                                                                                                  ď
                                                                                                                                                                                                                                                                                                                                                                                                                  Geerts
                                                                                                                                                                                                                                                                                                                                                                                                                  ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                nootropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1916
```

```
CC cardiovascular disease, disorders of the peripheral and central nervous CC cancer in a mammal. The method comprises contacting a test compound with CC Mas-related gene X1 (MrgX1) polypeptide and detecting binding of the test Compound to GPR3 polypeptide, or determining MrgX1 polypeptide activity CC at a certain test compound concentration (or in the absence of the test compound) and at a different concentration (or in the absence of the test compound) and at a different concentration of the test compound or at the CC presence of a compound known to be a MrgX1 polypeptide regulator. Also CC described: (1) diagnosing a disease defined above in a mammal; (2) a CC plarmaceutical composition for the treatment of the disease above CC comprising a MrgX1 polypeptide, a MrgX1 polypeptide, or a therapeutic CC agent which binds to a MrgX1 polypeptide or which regulates the MrgX1 CC antisense oligonucleotide, a polypeptide or which regulates the MrgX1 CC antisense oligonucleotide, a polypeptide, an antibody, or a ribozyme; and CC antisense oligonucleotide, a polypeptide, an antibody, or a ribozyme; and CC antisense oligonucleotide, a polypeptide, an antibody, or a ribozyme; and CC antisense oligonucleotide, a polypeptide, an antiblody, or a ribozyme; and CC antisense oligonucleotide, a polypeptide, an antiblody, or a ribozyme; and CC (3) preparation of a pharmaceutical composition weeful for treating the CC antisense oligonucleotide, antishmatory, antishlergic, thyrominetic, curebropocectrive, antishlematory, antishlergic, thyrominetic, curebropocectrive, antishlematory, antishlergic, thyrominetic, curebropocectrive, antishlematory antishlergic, thyrominetic, curebropocectrive, antishlematory antishlergic, thyrominetic, curebropocectrive, antishlematory antishlergic, thyrominetic, the sease of the general and central nervous system, inflammatory, respiratory the disease. The curebropocectic oligoners for PCR, for composition of the present developed.

CC disorders, urological and cancer in a mammal having the disease. T
G protein-coupled
receptor (GPCR).
```

Sequence 2040 BP; 455 Α, 517 C; 457 G 611 Ţ, 0 ς; 0 Other

DB 12;

Length

2040;

문 Ś 밁 Ś 문 S 문 á 밁 á 문 á 及 Ś Query Match Best Local S Matches 1596 Local Similarity hes 1596; Conserv 478 358 658 598 762 538 642 418 582 298 CGCCATCCCAACAAATCCTCAGTCCTGTGATGACCTTTTCCCTACTTTATAGGCCTA 821 GCAGACTTCCTCTCCTCAGCGGCCGCCTTATATATTCCCTGTTAAGCTTCATCAGTATC GCCGACTTCCTCTTAGCGGCCACATTATATGTTCGCCGTTACGCCCTCATCAATATC CTCCTGGGCTGCCGCATGCGCAGGAACGCCTTCTCCATCTACATCCTCAACTTGGCCGCA CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG 701 GAACTGACAATCAACGGAACTGAGGAGACTCTTTGCTACAAGCAGCCTTGAGCCTC GAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC TCCAGGGTCACCAGACTAGGGTTTCTGAGCATGGATCCAACCATCTCAACCTTGGACACA 357 TCATGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA CGCTGCCACCCCCACACACCTGTCAGCGGTGGTGTGTGTCCTGCTCTGGGCCCCTGTCC CACTGCCGCCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCC 941 AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC 881 ACGGTGCTGACGTGCATCGTTTCCCTTGTCGGGCTGACAGGAAACGCAGTTGTGCTCTGG ACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGGTTGTGCTCTGG CCCCATACCATCTCTAAAATCCTCTATCCTGTGATGATGTTTTCCTACTTTGCAGGCCTG Conservative 56.7%; 0; Score 1483.8; Pred. No. 0; 0; Mismatches 147; Indels 4 Gaps 717 761 477 417

The present invention describes a method of screening for therapeutic agents useful in treating disease such as haematological disease,

```
1677
                                                                                                                                                                                                                                                                       1842
                                                                                                                                                                                                                                                                                                                   1617
                                                                                                                                                                                                                                                                                                                                                                                                             1558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCCTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGCTGCGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAAIGTTTTGGAT 1661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCTTCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTA 1601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACAGGACTTTGAGAGCAACACTGCCCTGCCACCCTTGACAATTATATGCGTTTTTCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GACAGGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATATGCATTTTTCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCTGTGGGTCCAGCCTGGTCCTGCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCTTGGTGTCAAACATCAGATTTCATCACAGTCGCGTGGCTGATTTTTTTATGTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTTTGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTT
                                                                      AAGCAAAATAATGACCTTAGAGAGAGAGTTCTCCCCTTCATAAAAACAGTCTTAGAAATTGG
                                                                                                                                                                                                                        GACTATGTTCCCCTGAAAATCATGTTCCCTTCTATGACTGGAGGCATTACTGCAGTTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAAATCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAGCCTCTGCCCTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCTGTGGGTCCAGCCTGGTCCTGCTGATCAGGATTCTCTGTGGATCCCGGAAGATACCG
TTTTATGAATAGCCCTCTCCTGTCATTTGTCCACAGCATGGTGACATGTTGGCCCTTGGTT
                                          GAGCAAAATAATGTCCTTAGAGACAGACTCTCTCTTCATAAAAACACTCTCACCTATTGG
                                                                                                                                   AGCTCGATTCTTAATAAGTGAGTTCTGCTATCTCTACATTCCATTGAATTCTCAGATACA
                                                                                                                                                               AGCTCAATTCTTAATAAGTGAGTTCTGCTACCTCTAAATTCCATTGAATTCTCAGATATA 1961
                                                                                                                                                                                                                                                                       GACTATGTTCCCCTGAAAATCATGTTCCCTTTTATGACTGGAGGCATTACTGCAGTTGGA
                                                                                                                                                                                                                                                                                                                                                                TCTTTATACTTGTTTCCTACCTGATAGTATCAAAAAGGAAGATTCCTTATTAATCTGTCA 1841
                                                                                                                                                                                                                                                                                                                                                                                                             CACTTTTTCTGCAATTTTCTTTGTAATAAAAGGAGTTCCTGTACAAAACCCCTAAAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                       CACTTTTTCTGCACTTTTCATTGTAATAAAAGGAGTTGCTGTCCACAACCCTAAAACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCTCCTTGATATTACCAACACATTTTCCCTGTTATCTCACACTGAATCTTTCCTACAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCTCCTTGATATTACCAATACATTTTCCCTGTTATCTTGCACTGAATCTTTCCTACTGAA 1721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCTGACAGTTGCGGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCTTCTGCCTCAGAAATGTCTCAGTGGTTCCTCAAGGTCTTCAAATAGATGTTTATCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCCAGAGGGCTCTGCAGGACGCGTCTGAGGTGGATGAAGGTGGAGGGCAGCTTCCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCTTTGGCATTCAGTTTTTCCTATTTTTATGGATCCACGTGGACAGGGAAAGTCTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGACCAGGCTGTACGTGACCATCCTGCTCACAGTACTGGTCTTCCTCCTCTGTGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1301
                                                                                                                                                                                                                                                                       1901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1181
  2081
                                            1856
                                                                                                                                     1796
                                                                                                                                                                                                                            1736
                                                                                                                                                                                                                                                                                                                      1676
                                                                                                                                                                                                                                                                                                                                                                                                             1616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1557
```

\$

유 상 유

중 유

5

8 8 8 8 8 8 8 8

성 유

TÓCAĞĞĞTCATCAĞACTĞĞĞĞTTTCTĞAĞCATĞĞATTCAACCATCCCAĞTCTTĞĞĞTACA GAACTĞACACCAATCAACĞĞACĞTĞAĞĞAĞACTCCTTĞCTACAAĞCAĞACCCTĞAĞCTTC

230 581

171 522 Ş

밁

日

ş

유

유왕

음 성 음

청 음 성

B 8

8 8 8 8 8

```
ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                               Query Match
Best Local Similarity
Matches 1195; Conserv
                                                                                                               The invention relates to a novel polynucleotide encoding a guanosine triphosphate-binding protein coupled receptor (GPCR). A polynucleotide of the invention may have a use in gene therapy. The polynucleotide and polypeptide are useful for preparing a composition for treating a patient in need of increased or suppressed activity or expression of the guanosine triphosphate-binding protein coupled receptor. The polynucleotide sequences shown in ADC85548-ADC87616 encode GPCR's of the
                                                                                                                                                                                                                                     New polynucleotide, useful for preparing a composition for treating a patient in need of increased or suppressed activity or expression of the guanosine triphosphate-binding protein coupled receptor.
                                                                                                                                                                                                                                                                                                                          Suwa
                                                                              Sequence 1369 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         guanosine triphosphate-binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human GPCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-JAN-2004
                                                                                                                                                                                                               Claim 1; SEQ ID NO 1273; 28pp; English.
                                                                                                                                                                                                                                                                                                                                                (ADSC-)
                                                                                                                                                                                                                                                                                                                                                                                   18-JUN-2001; 2001JP-00246789
                                                                                                                                                                                                                                                                                                                                                                                                            18-JUN-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                    02-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                           EP1270724-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ds; gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADC86820;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADC86820
                                                                                                       invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1857
                                                                                                                                                                                                                                                                                                                          Z,
                                                                                                                                                                                                                                                                                     2003-315783/31.
DB; ADC86821.
                                                                                                                                                                                                                                                                                                                                                NAT INST ADVANCED IND SCI & TECHNOLOGY.
CENT ADVANCED SCI & TECHNOLOGY INCUBATIO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCATGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA
                                                                                                                                                                                                                                                                                                                          Asai K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTGGAA 2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTGGAA 2208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCCTGGACTAATGGACCAGTGAGGAGCCCATAAATGTG----CCCCAGTTCTATTTTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCCTGGACTAATGAACTAGTGAGGAGCCTATAAATATGTCCCACCAGTTTCATTTTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCTAGTAAAGACAACTGTGGCCCCTTCCCCTTGAGAACTTTTAAGTGCTTATTTAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCTAGTAAAGACAATCGTGGCCCCTTCCCCCTTGAGAACTGGTAAGTTCTTATTTAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    human; GPCR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gene
                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                            2002EP-00013517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQ ID
                                                                              272 A; 372 C; 340 G; 385
                                                                                                                                                                                                                                                                                                                          Akiyama
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    entry)
                                          45.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NO:1273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1369
                                                                                                                                                                                                                                                                                                                          ۲
                                <u>.</u>
                                Score 1192.6;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protein coupled receptor;
                                                                                                                                                                                                                                                                                                                          Ξ
                                                                              T; 0 U; 0 Other;
                                                        DB
                                4.
                                                        10;
                                 Indels
                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gene therapy.
                                 0
                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2033
           521
                                 0
```

밁

1311 ACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTTGGA 1369

```
1602
                                                                                                                                                                                                                                                                                1071
                                                                                                                                                                                                                                                                                                                   1362
                                                         1251
                                                                                             1542
                                                                                                                                                                                                                                                                                                                                                       1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1002
                                                                                                                                                                                                                                                                                                                                                                                                                             951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       231
ACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGA 1660
                                                                                                                                                          GACAGGACTTTGAGAGCAATGCTGCCCTGCCCACCCTTGACAATTATATGCATTTTTCTTA
                                                                                                                                                                                                                                                                              TGTCATGTGCATCTAGTTTCCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTCTGTGGCCTG 1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTCTGTGGGTCCAGCCTGGTCCTGCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CACTGCCGCCCCAGATACCTGTCATCAGTCATGTGTGTCCTGCTCTGGGCCCTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCGACTTCCTCTTCCTTAGCGGCCACATTATATGTTCGCCCGTTACGCCTCATCAATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACGGGGCTGACGTGCATCGTTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGG
                                                         GCCTTCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTA
                                                                              GCCTTCTGCCTCAGAAATGTCTCAGTGGTCCCCTCAAGGTCTTCGAATAGATGTTTTATCTA 1601
                                                                                                                               GACAGGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTA
                                                                                                                                                                                                      GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA
                                                                                                                                                                                                                                      GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA
                                                                                                                                                                                                                                                                                                                   CTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAG
                                                                                                                                                                                                                                                                                                                                                                                         ATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCTGTGGGGTCCAGCCTGGTCGGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTAATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGCTGCGGAGTATCCTGGAGTGGATTTCTGTGACTTCCTGTTTTAGTGGTGCTGATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCCATCTGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCGACTTCCTCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGG
                                                                                                                                                                  1541
                                                                                                                                                                                                                                          1481
                                                                                                                                                                                                                                                                                                                 1421
                                                                                                                                                                                                                                                                                                                                                                                         1361
                                                                                                                                                                                                      1190
                                                       1310
                                                                                                                               1250
                                                                                                                                                                                                                                                                              1130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1001
                                                                                                                                                                                                                                                                                                                                                       1070
                                                                                                                                                                                                                                                                                                                                                                                                                             1010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       290
```

B 5 밁 5 뫄 र् 밁 δ 문 S 밁 र् 밁 8 밁 ð

```
RABSULT 7
ABKS2823
AN ABKS
AN 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel isolated G-protein coupled receptor peptide useful for treating disorder characterized by absence of, in appropriate or unwanted expression of the receptor protein, and as immunogens to raise
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; G-protein coupled; receptor; GPCR; human protease; human therapeutic protein; query sequence; search; gene; ds; sequence database; non-human transgenic animal; gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25-OCT-2000;
31-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Genomic DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2002-463360/49.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Wei M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (PEKE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10-OCT-2001; 2001WO-US031592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 02-MAY-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200234914-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 chromsome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABK52823;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABK52823 standard; DNA; 8622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   intron
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAU97598.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PE CORP NY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Zhao Q,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000US-00695045.
2001US-00867570.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4320. .7502
/*tag= c
/number= 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /*tag= a
/product= "H
4300. .4319
/*tag= b
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers 4300. .8496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7503. .8496
/*tag= d
/number= 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Woodage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      number= 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Human G-protein coupled receptor (GPCR)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  G-protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  다.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ₽₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Francesco
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  coupled receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Beasley
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    婴
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GPCR)
```

The present invention relates to a new G-protein coupled receptor (GPCR) peptide. The invention is useful for identifying a modulator of GPCR and for treating a disease or condition mediated by a human protease. The invention is also useful as models for the development of human therapeutic agents, and as guery sequence to perform a search against sequence databases to, for e.g., identify other family members of related sequences. The vector of the invention is useful for producing a GPCR protein or peptide, for conducting cell-based assays involving the GPCR protein or peptide, for conducting cell-based assays involving the GPCR protein or its fragment, for identifying GPCR protein mutants whose functions are affected, and to produce non-human transgenic animals. The present nucleic acid sequence represents the human G-protein coupled receptor (GPCR) gene located on chromosome 3. This sequence encodes the human G-protein coupled receptor the human G-protein Claim 4; Fig 3; 75pp; English

В ð B S

밁 ð 음 성

8

밁

8

밁

S 밁 S 밁 Ş

밁

```
5
                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                    청 음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                     뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
밁
                   S
                                         뮹
                                                                                                 В
                                                                                                                 8
                                                                                                                                        문
                                                                                                                                                                                                 음 성
                                                                                                                                                                                                                                          유 성
                                                                                                                                                                                                                                                                                          ₽,
                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       뭥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 1107;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
8458
                                                                        1362
                                                                                                                          1302
                                                                                                                                                   8278
                                                                                                                                                                          1242
                                                                                                                                                                                                   8218
                                                                                                                                                                                                                          1182
                                                                                                                                                                                                                                                   8158
                                                                                                                                                                                                                                                                                                    8098
                                                                                                                                                                                                                                                                                                                          1062
                                                                                                                                                                                                                                                                                                                                                    8038
                                                                                                                                                                                                                                                                                                                                                                                                     7978
                                                                                                                                                                                                                                                                                                                                                                                                                                                     7918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7618
                                                                                                                                                                                                                                                                                                                                                                                                                            942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                   CTCTGTGGGTCCAGCCTGGTCCTGCTGGTCAGGATCCTGTGGATCCCGGAAGATGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CACTGCCGCCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCTGGCCCCATCTGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCGACTTCCTCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGGTTGTGCTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCATGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8622
           GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA
                                                                                                                                                 TGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC
                                                                                                                                                                                                                                                                                                                                                  CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                      CACTGCCGCCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCGACTTCCTCTCCTTAGCCGCCACATTATATGTTCGCCGTTACGCCTCATCAATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCCAGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA
                                                             CTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAG
                                                                                                               ATTTACTTCCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT
                                                                                                                                                                                                                 CCCTTTGGCAFTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT
                                                                                                                                                                                                                                                   CTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTG
                                                                                                                                                                                                                                                               CTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA
                                                 CTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAG
                                                                                                  ATTTACTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT
                                                                                                                                                                                                    CCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                      CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2684 A; 1921 C; 1679 G; 2338 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   42.2%;
99.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 1104; DB 6;
Pred. No. 5.4e-298;
Mismatches 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 8622;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                          1361
                                                                                                                                                                                                                                                                             1181
                                                                                                                                                                                                                                                                                                                            1121
                                                                                                                                                                                                                                                                                                                                                                            1061
 8517
                        1481
                                                 8457
                                                                        1421
                                                                                                  8397
                                                                                                                                                   8337
                                                                                                                                                                          1301
                                                                                                                                                                                                    8277
                                                                                                                                                                                                                          1241
                                                                                                                                                                                                                                                   8217
                                                                                                                                                                                                                                                                                                    8157
                                                                                                                                                                                                                                                                                                                                                    8097
                                                                                                                                                                                                                                                                                                                                                                                                      8037
                                                                                                                                                                                                                                                                                                                                                                                                                             1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                      7977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   521
```

```
밁
                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                             Query Match
Best Local Similarity
Matches 1096; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                      04-MAY-2000;
01-AUG-2000;
03-NOV-2000;
                                                                                                                   The invention relates to Mrg (mas-related gene) protein, which is a G-protein coupled receptor and drg-12 protein, which is a receptor. The invention is useful for identifying compounds that bind to it, especially agonists or antagonists. Administration of an agent (e.g. the identified agonist) that increases the expression of Mrg in a mammal may be used for treating impaired sensory perception in a mammal, especially pain. The antagonist may also be useful for treating impaired sensory perception in a mammal. The present sequence is human MrgX3 DNA
                                                                                                                                                                                                                                                      Isolated polypeptide, Mrg, which is a G-protein coupled isolated polypeptide, drg-12, which is also a receptor, identifying agonists or antagonists for treating pain.
                                                                                              Sequence 1400 BP; 276 A; 375 C; 363 G; 386 T; 0 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; mas-related gene; G-protein coupled receptor; drg-12
receptor; sensory perception; pain; analgesic; MrgX3; gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human MrgX3 (mas-related gene)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAD33751
                                                                                                                                                                                                                                Disclosure; Page 128-129; 185pp; English.
                                                                                                                                                                                                                                                                                                          P-PSDB;
                                                                                                                                                                                                                                                                                                                                             Anderson
                                                                                                                                                                                                                                                                                                                                                                                                                                                       04-MAY-2001; 2001WO-US014519.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               08-NOV-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200183555-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo
                                                                                                                                                                                                                                                                                                                                                                                             19-APR-2001;
                                                                                                                                                                                                                                                                                                                                                                   (CALY ) CALIFORNIA INST OF TECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sapiens
                                                                                                                                                                                                                                                                                                                    2002-171346/22.
 302
                                                                                                                                                                                                                                                                                                          AAE21296.
                                                                                                                                                                                                                                                                                                                                           2
            TCATGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GACAGGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTA 8577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GACAGGACTTTGAGAGCAATGCTGCCCTTGCCACCCTTGACAATTATATGCATTTTTCTTA 1541
 TCCAGGGTCACCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCTTCTGCCTCAGAAATGTCTCAGGGTCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCTTCTGCCTCAGAAATGTCTCAGTGGTCCC 1573
                                                                                                                                                                                                                                                                                                                                                                                          ; 2000US-0202027P.
; 2000US-0222344P.
; 2000US-00704707.
; 2001US-0285493P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first
                                                                                                                                                                                                                                                                                                                                           Dong X,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /*tag= a
/product=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             entry)
                                                          41.8%;
                                                                                                                                                                                                                                                                                                                                             Zylka
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Human MrgX3
                                               0
                                             Score 1094.2; DB Pred. No. 1e-295; O; Mismatches
                                                                                                                                                                                                                                                                                                                                             Σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA
                                                                                                                                                                                                                                                                                                                                             Han
                                                                                                                                                                                                                                                                                                                                             ά
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein"
                                                                                                                                                                                                                                                                                                                                             Simon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8609
                                                                        DB
                                                                       6;
                                                                                                                                                                                                                                                                                                                                             3
                                                 Indels
                                                                     Length
                                                                                                0 Other;
                                                                                                                                                                                                                                                                     l receptor useful fo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  protein;
                                                0;
                                                                                                                                                                                                                                                               for
                                                Gaps
                                                                                                                                                                                                                                                                                  an
                          521
  361
```

ð 밁

밁

```
1262
                                                                                                                                                                                                                                                                1362
                                                                                                                                                                                                                                                                                                                                                1302
                                                                                                                                                                                                                                                                                                                                                                                         1082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    362
GCCTTCTGCCTCAGAAATG
                                                                           GACAGGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTA
                                                                                                                                                             GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA 1481
                                                                                                                                                                                                                                               CTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAG 1421
                                                                                                                                                                                                                                                                                                       ATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTG 1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCTGTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCG 1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTTTGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTT 1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CACTGCCGCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCGACTTCCTCTTAGCGGCCACATTATATGTTCGCCGTTACGCCCTCATCAATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGG
                                                                                                                                       GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCCTGTCA
                                                                                                                                                                                                                       CTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAG
                                                                                                                                                                                                                                                                                                                                                ATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                              TGTCATGTGCATCTAGTTTCCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC 1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCTGTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCCATCTGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCGACTTCCTCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGG
                                                        GACAGGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC
               1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1241
                                                                                                                                                                                                                                                                                                                                              1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1001
                                                        1381
                                                                                                                                     1321
                                                                                                                                                                                                                       1261
                                                                                                                                                                                                                                                                                                       1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
```

밁

ठ

밁

중 유

Ś 밁 8 밁 8 문 δ 밁 S

```
G protein-coupled receptor; GPCR; antigenic peptide; gene therapy; G protein-coupled receptor modulator; antibody; immune-related disease; growth-related disease; cell regeneration-related disease; AIDS; cancer; immunological-related cell proliferative disease; autoimmune disease; Alzheimer's disease; atherosclerosis; infection; osteoarthritis; allergy; osteoporosis; cardiomyopathy; inflammation, Crohn's disease; diabetes; graft versus host disease; Parkinson's disease; multiple sclerosis; pain; psoriasis; anxiety; depression; schizophrenia; dementia; memory loss; mental retardation; epilepsy; asthma; tuberculosis; obesity; nausea; hypertension; hypotension; renal disorder; rheumatoid arthritis; trauma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human G protein-coupled receptor MrgX3 nucleotide SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         04-MAR-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABZ42595 standard; DNA; 1400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ВÞ
```

Ħ

NO:673.

Homo sapiens.

gene; ds.

08-AUG-2002

19-DEC-2001; 2001WO-US050107

19-DEC-2000; 2000US-0257144P

LIFESPAN BIOSCIENCES

ი ე Roush CL, Brown Į,

2003-046718/04.

New isolated antigenic peptides e.g., for G protein-coupled receptors (GPCR), useful for diagnosing and designing drugs for treating conditions in which GPCRs are involved, e.g. AIDS, Alzheimer's disease, cancer or autoimmune diseases.

Disclosure; Fig 1; 523pp; English

The present invention describes antigenic peptides (1) comprising: (a) CC any one of 1601 sequences (see ABP82019) to ABP83619) of 12-24 amino CC acids. Also described: (1) an assay for the detection of a particular GC protein-coupled receptor (GPCR) or a candidate polypeptide in a sample; CC and (2) an isolated antibody having high specificity and high affinity or CI avidity for a particular GPCR. (1) can be used as GPCR modulators and in CC gene therapy. The antigenic peptides for GPCRs are useful in detecting an CC antibody against a particular GPCR, and in the production of specific CC antibody. The peptides and antibodies are also useful for detecting the CC presence or absence of corresponding GPCRs. The antigenic peptides for CC GPCRs and antibodies are useful for diagnosing and designing drugs for CC treating immune-related diseases, growth-related diseases, cell CC diseases, or autoimmune diseases, growth-related cell proliferative CC diseases, nation-related diseases, immunological-related cell proliferative CC disease, bacterial, fungal, protozoan or viral infections, costeoarthritis, osteoporosis, cancer, cardiomyopathy, chronic and acute CC disease, Parkinson's disease, multiple sclerosis, pain, psoriasis, CC disease, paliepsy, asthma, tuberculosis, obesity, nausea, hypertension, CC anxiety, depression, schizophrenia, dementia, mental retardation, memory CC ansiety, setting standarders, rheumatoid arthritis, trauma, ulcers, or CC any other disorder in which GPCRs are involved. The antibodies may be CC used in immunoassays and immunodiagnosis. ABZ42523 to ABZ42869 encode CC GPCR proteins given in ABP81675 to ABP82018, which are used in the CC exemplification of the present invention

S 밁 S 밁 S 밁 Ś В 8 밁 ঠ 밁 8

S 밁

1400

Sequence 1400 BP; 276 A; 375 C; 363 G; 386 Ħ, 0 Ç, 0 Other;

Length 1400

```
밁
                                                                         S
                                                                                                        밁
                                                                                                                            S
                                                                                                                                                             밁
                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                          중 유
                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
밁
                                                                                                                                                                                  S
                                                                                                                                                                                                          뮍
                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 1096; Conserv
                                                                                                          1142
                                                                                                                                                                                         1242
                                                                                                                                                                                                                    1022
                                                                                                                                                                                                                                              1182
                                                                                                                                                                                                                                                                                                                                                        1062
                                                                                                                                                                                                                                                                                                                                                                                                              1002
                                                                                                                                                                                                                                                                          962
                                                                                                                                                                                                                                                                                                                               902
                                                                                                                                                                                                                                                                                                                                                                                   842
                                                                                                                                                                                                                                                                                                                                                                                                                                        782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAACTGACACCAATCAACGGACGTGAGGAGGACTCCTTGCTACAAGCAGACCCTGAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                   GTTTGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGCTGCGGAGTATCCTGGAGTGGATTCTTGTGACTTCCTGTTTTAGTGGTGCTGATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CACTGCCGCCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCCTACTTTATAGGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGCCATCCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCGACTTCCTTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCATGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA
              GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA
                                                                                                                                                                                                                                                                                      CTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTG
                                                                                                                                                                                                                                                                                                                                                          CTCTGTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCGACTTCCTCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACGGGGCTGACGTGCATCGTTTCCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCAGGGTCACCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA
                                                                    CTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAG
                                                                                                                          ATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT
                                                                                                                                                              TGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC
                                                                                                                                                                                 TGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC
                                                                                                                                                                                                                                     CCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT
                                                                                                                                                                                                                                                                          CTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                     GTTTGGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTT
 GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA
                                                     CTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAG
                                                                                                          ATTTACTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT
                                                                                                                                                                                                                    CCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT
                                                                                                                                                                                                                                                                                                                                CTCTGTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                41.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 1094.2; DB Pred. No. 1e-295; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                          1481
                                                                                                          1201
                                                                                                                                                                                                                    1081
                                                                                                                                                                                                                                               1241
                                                                                                                                                                                                                                                                                                                                                        1121
 1321
                                                    1261
                                                                               1421
                                                                                                                                     1361
                                                                                                                                                              1141
                                                                                                                                                                                                                                                                          1021
                                                                                                                                                                                                                                                                                                    1181
                                                                                                                                                                                                                                                                                                                                                                                                                1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           521
                                                                                                                                                                                                                                                                                                                                961
                                                                                                                                                                                                                                                                                                                                                                                   901
                                                                                                                                                                                                                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
```

```
RESULT 10
ADH08534
ID ADH088
XX ADH088
XX ADH088
XX ADH08
XX ADH08
XX BAB-I
XX MAS-I
XX MAS-I
XX MAS-I
XX MO200
XX MO200
XX MO200
XX MO200
XX ADH08
PF 13-MA
XX I-MA
X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
S
                                                     밁
                                                                                                  र्
                                                                                                                                                                      밁
                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 1096; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present invention relates to an isolated mas-related gene D (MrgD) polypeptide. The MrgD polypeptides are useful as therapeutics or for identifying compounds, i.e. agonists or antagonists, that alter pain perception in a mammal. The compounds are useful for treating impaired sensory perception, e.g. chronic intractable pain or neuropathic pain, promoting wound healing, restoring normal sensitivity following injury, or treating ocular conditions, particularly those associated with pressure such as glaucoma. The Mrg genes or proteins may be used as molecular probes for the detection of cells or tissues related to or involved with sensory perception. The present sequence represents a MrgA (Mrg subfamily) encoding sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New mas-related gene D polypeptides, useful as therapeutics or in identifying agonists or antagonists that alter pain perception in a mammal for treating impaired sensory perception, e.g. chronic intractable pain or neuropathic pain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     mas-related gene D; MrgD; Analgesic; Vulnerary; Ophthalmological;
sensory perception; glaucoma; Mrg; ds.
                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; SEQ ID NO 30; 220pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO2004003133-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA sequence MrgX3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25-MAR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Anderson DJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   26-JUN-2002; 2002US-00183116.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13-MAY-2003; 2003WO-US015004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADH08534 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (CALY ) CALIFORNIA INST OF TECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1542
                                                              362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADH08535.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GACAGGACTITGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTA 1381
                                                                                         GAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC
                                                                                                                                                                            TCCAGGGTCACCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA
                                                                                                                                                                                                                TCATGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCTTCTGCCTCAGAAATG 1400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GACAGGACTITGAGAGCAATGCTGCCCTGCCACCTTGACAATTATATGCATTTTTTCTTA 1541
     ACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGG
                                                              GAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCTTCTGCCTCAGAAATG
                                                                                                                                                                                                                                                                                    41.8%;
ilarity 99.7%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first
                                                                                                                                                                                                                                                                                                                                                                                                        B₽;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Dong X,
                                                                                                                                                                                                                                                                                                                                                                                                        276 A; 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     zylka M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1400
                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                  Score 1094.2;
Pred. No. 1e-2
                                                                                                                                                                                                                                                                                                                                                                                                        C; 363 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1560
                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Han S,
                                                                                                                                                                                                                                                                                                                                                                                                           386
                                                                                                                                                                                                                                                                                                                        1e-295;
                                                                                                                                                                                                                                                                                                                                                                                                           T; 0
                                                                                                                                                                                                                                                                                                                                                  DB 12;
                                                                                                                                                                                                                                                                                             ω
••
                                                                                                                                                                                                                                                                                                                                                                                                           ₽,
                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                           0 Other;
                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                     1400
                                                                                                                                                                                                                                                                                          .
,
                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                               361
                                                                                                                                                                                                                                       521
           641
                                                                 421
                                                                                                                         581
```

í

```
र्
                                                                                                                                                  음 성
                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                $
                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                र्
                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                 망
                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ફ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ર્ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
               ঠ
                                             밁
                                                                   원 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                   1362
                                                                                                                                                                                                             1142
                                                                                                                                                                                                                                                                1082
                                                                                                                                                                                                                                                                                          1242
                                                                                                                                                                                                                                                                                                                    1022
                                                                                                                                                         1202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1002
                                                                                                                                                                                                                                                                                                                                                                                               1122
                                                                                                                                                                                                                                                                                                                                                                                                                                                  1062
                                                                                                                                                                                                                                                                                                                                                                                                                          902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    422
                                                                                                                       GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA 1481
                                                                                                                                                                     CTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAG 1421
                                                                                                                                                                                                                           ATTTACTTCCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT
                                                                                                                                                                                                                                                                               TGTCATGTGCATCTAGTTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC
                                                                                                                                                                                                                                                                                                                                   CCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT
                                                                                                                                                                                                                                                                                                                                                                                       CTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                          CTCTGTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCTGTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT 100:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCCTACTTTATAGGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGCCATCCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCGACTTCCTCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCGACTTCCTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGG
GCCTTCTGCCTCAGAAATG
               GCCTTCTGCCTCAGAAATG 1560
                                                    GACAGGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATATGCATTTTTCTTA
                                                                                                      GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA
                                                                                                                                                                                                             ATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT
                                                                                                                                                                                                                                                                 TGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC
                                                                                                                                                                                                                                                                                                                    CCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT
                                                                                                                                                                                                                                                                                                                                                                      CTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTTTGGTGTAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CACTGCCGCCGCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCC
                                                                            GACAGGACTTTGAGAGCAATGCTGCCCTGCCACCTTGACAATTATATGCATTTTTCTTA 1541
1400
                                                                                                                                                                                                                                      1361
                                                                                                                                                                                                                                                                 1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     821
                                                                                                                                                                                                             1201
                                                                                                                                                                                                                                                                                        1301
                                                                                                                                                                                                                                                                                                                    1081
                                                                                                                                                                                                                                                                                                                                            1241
                                                                                                                                                                                                                                                                                                                                                                        1021
                                                                                                                                                                                                                                                                                                                                                                                                1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                          1261
                                                                                                                                                                                                                                                                                                                                                                                                                          961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               901
```

RESULT 11
ADC86444
ID ADC86
XX
AC ADC86

ADC86444 standard; DNA; 1369

ΒP

ADC86444;

```
Ś
                                         밁
                                                                 Ś
                                                                                                  밁
                                                                                                                      Ś
                                                                                                                                                     문
                                                                                                                                                                                 S
                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 1100; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to a novel polymucleotide encoding a guanosine triphosphate-binding protein coupled receptor (GPCR). A polymucleotide of the invention may have a use in gene therapy. The polymucleotide and polypeptide are useful for preparing a composition for treating a patient in need of increased or suppressed activity or expression of the guanosine triphosphate-binding protein coupled receptor. The polymucleotide sequences shown in ADC85548-ADC87616 encode GPCR's of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New polynucleotide, useful for preparing a composition for treating a patient in need of increased or suppressed activity or expression of t guanosine triphosphate-binding protein coupled receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            guanosine triphosphate-binding protein coupled receptor; gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 1369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              18-JUN-2001; 2001JP-00246789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18-JUN-2002; 2002EP-00013517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         02-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (ADSC-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene; human; GPCR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2003-315783/31.
DB; ADC86445.
                822
                                                                                                  411
                                                                                                                                                           351
                                                                                                                                                                                      642
                                                                                                                                                                                                                    291
                                                                                                                                                                                                                                               582
                                                                                                                                                                                                                                                                           231
                                                                                                                                                                                                                                                                                                                                  171
                                                                                                                                                                                                                                                                                                                                                               462
                                            471
                                                                      762
                                                                                                                              702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAT INST ADVANCED IND SCI & TECHNOLOGY.
CENT ADVANCED SCI & TECHNOLOGY INCUBATIO
                                                                                                                                                                                                                                                                                                                                                   TCATGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO 897; 28pp; English.
                                                                                                                                                                                                                                                                                                    GAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Asai K,
AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC
                                                          CGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
                                                                                                                      GCCGACTTCCTCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATTC
                                                                                                                                                           CTCCTGGGCTGCCGCATGCGCAGGAACGCCTTCTCCATCTACATCCTCAACTTGGCCGCA
                                                                                                                                                                           CTCCTGGGCTGCCGCATGCACGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
                                                                                                                                                                                                                                               ACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGG
                                                                                                                                                                                                                                                                           GAACTGACACCAATCAACGGAACTGAGGAGACTCTTTGCTACAAGCAGACCTTGAGCCTC
                                                                                                                                                                                                                                                                                                                                  TCCAGGGTCACCAGACTAGGGTTTCTGAGCATGGATCCAACCATCTCAACCTTGGACACA
                                           CCCCATACCATCTCTAAAATCCTCTATCCTGTGATGATGTTTTTCCTACTTTGCAGGCCTG
                                                                                                     GCAGACTTCCTCTCAGCGGCCGCCTTATATATTCCCTGTTAAGCTTCATCAGTATC
                                                                                                                                                                                                                    ACGGTGCTGACGTGCATCGTTTCCCTTGTCGGGCTGACAGGAAACGCAGTTGTGCTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                  BP; 276 A; 364 C; 337 G; 392 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Akiyama
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IJ
                                                                                                                                                                                                                                                                                                                                                                                                       39.7%;
91.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NO:897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ĸ
                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                         Score 1040.6; DB 10
Pred. No. 1.1e-280;
0; Mismatches 99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Aburatani
                                                                                                                                                                                                                                                                                                                                                                                                                      DB 10;
                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                         1369;
                                                                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          the
                                                                         821
                                                                                                                                                                                                                                                                                                                                     230
                   881
                                                                                                                                                              410
                                                                                                                                                                                                                                                                                                         185
                                                                                                     470
                                                                                                                                                                                         701
                                                                                                                                                                                                                     350
                                                                                                                                                                                                                                                  641
                                                                                                                                                                                                                                                                            290
```

```
RESULT 12
AAD33752
ID AAD33
XX
AC AAD33
XX
DT 01-JU
XX
DT Human
XX
FM Human
XX
Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유정
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ם
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                뭥
                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                             B 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유정
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 日
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                Human; mas-related gene; G-protein coupled receptor; drg-12 receptor; sensory perception; pain; analgesic; MrgX4; gene;
                                                                                                                                                                     Human MrgX4
                                                                                                                                                                                                                01-JUL-2002
                                                                                                                                                                                                                                                                                       AAD33752
                                                                                                                                                                                                                                                                                                                                                                                    1311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1002
                                                                            sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCTTCTGCCTCAGAAATGTCTCAGTGGTTCCTCAAGGTCTTCAAATAGATGTTTATCTA 1310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCTTCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTA 1601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTTGTGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGCTGCCACCGCCCCACACCCTGTCAGCGGTGTGTGTGTCCTGCTCTGGGCCCTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           standard;
                                                                                                                                                                                                                                                                                                                                                                                                          ACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGA 1660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAAATCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAGCCTCTGCCCTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTTACTTCCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTTACTTCCTGGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCTTTGGCATTCAGTTTTTCCTATTTTTATGGATCCACGTGGACAGGGAAGTCTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGACCAGGCTGTACGTGACCATCCTGCTCACAGTACTGGTCTTCCTCCTCTGTGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTTGGTGTCAAACATCAGATTTCATCACAGTCGCGTGGCTGATTTTTTTATGTGTGGTT
                                                                                                                                                                                                                                                                                                                                                                                    ACCTGACAGTTGCGGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGCTGCGGAGCATCCTGGAGTGGATGTTATGTGGCTTCCTGTTCAGTGGTGCTGATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (mas-related gene)
                                                                                                                                                                                                                (first
Location/Qualifiers
433. .1401
/*tag= a
                                                                                                                                                                                                                                                                                       DNA; 1604
                                                                                                                                                                                                               entry)
                                                                                                                                                                                                                                                                                         ВP
                                                                                                                                                                           DNA
                                                                                                                  protein;
                                                                                                                                                                                                                                                                                                                                                                                        1369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       650
                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                  밁
                                                                                                                          5
                                                                                                                                                                         밁
                                                                                                                                                                                                   $
                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Sim
Matches 1090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     04-MAY-2000;
01-AUG-2000;
03-NOV-2000;
19-APR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Anderson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200183555-A2
                                                                                                                                                                                                                                                  647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 466
                                                                                                                                                                         707
                                                                                                                                                                                                                                                                                       706
                                                                                                                                                                                                                                                                                                                               587
                                                                                                                                                                                                                                                                                                                                                                  646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            407
                                                                                              767
                                                                                                                                                                                                               766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ը,
                                                                                                                                                                                                                                                                                                                                                                                                      GCCGCCGCCCAGATACCTGTCATCGGTCATGTGTGTGTCCTGCTCTGGGCCCTGTCCCTGC
                                                                                                                                                                       GCCGCCCCCACACACCTGTCAGCGGTCGTGTGTGTCCTGCTCTGGGGCCTGTCCCTGC
                                                                                                                    TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACT
                                                                                                                                                                                                                                                    ACTTCCTCTCAGCTTCCAGATTATACGTTCGCCATTACGCCTCATCAATATCAGCC
                                                                                                                                                                                                                                                                          ACTICCICTICCITAGCGGCCACATIAIATGTICGCCGTIACGCCCTCAICAATAICCGCC
                                                                                                                                                                                                                                                                                                                               TGGGCTACCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGCCGCAGCAG
                                                                                                                                                                                                                                                                                                                                                       TGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGGCACCAGACTAGAGTTTCTGAGCATGGATCCAACCGTCCCAGTCTTCGGTACAAAAC
                                                                                                  TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCTGTTCTGTGGCCCATCTGGTACCGCT
```

706 765 646 586 645 526 585 466

705

885

945

826

```
The invention relates to Mrg (mas-related gene) protein, which is a G-
protein coupled receptor and drg-12 protein, which is a receptor. The
invention is useful for identifying compounds that bind to it, especially
agonists or antagonists. Administration of an agent (e.g. the identified
agonist) that increases the expression of Mrg in a mammal may be used for
treating impaired sensory perception in a mammal, especially pain. The
antagonist may also be useful for treating impaired sensory perception in
a mammal. The present sequence is human MrgX4 DNA
                                                                                                                                                                                                                                          Isolated polypeptide, Mrg, which is isolated polypeptide, drg-12, which identifying agonists or antagonists
                                                                                                                                                                                                                                                                                                      WPI; 2002-171346/22.
P-PSDB; AAE21297.
                                                        Sequence 1604 BP; 337 A; 420 C; 399 G; 448 T; 0 U; 0 Other;
                                                                                                                                                                                                                 Disclosure; Page 130-132; 185pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              04-MAY-2001; 2001WO-US014519
                                                                                                                                                                                                                                                                                                                                                                           (CALY ) CALIFORNIA INST OF TECHNOLOGY.
             similarity 91.0%;
  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                      ; 2000US-0202027P.
; 2000US-0222344P.
; 2000US-00704707.
; 2001US-0285493P.
                                                                                                                                                                                                                                                                                                                                               Dong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  product=
                                                                                                                                                                                                                                                                                                                                               ×
                                                                                                                                                                                                                                                                                                                                               Zylka
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Human MrgX4
 <u>,</u>
Score 1013.6; DB 6;
Pred. No. 4.5e-273;
0; Mismatches 104;
                                                                                                                                                                                                                                                                                                                                                Σ,
                                                                                                                                                                                                                                                                                                                                                Han S,
                                                                                                                                                                                                                                          a G-protein coupled receptor is also a receptor, useful for treating pain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein"
                                                                                                                                                                                                                                                                                                                                                  Simon
                                                                                                                                                                                                                                                                                                                                                  Σ,
  Indels
                            Length 1604;
 4
                                                                                                                                                                                                                                                            or and
  Gaps
                                                                                                                                                                                                                                                                             an
```

```
RESULT 13
ABZ42602
ID ABZ42
XX BY G prc
XW G prc
XW G prc
XW G prowith XW immur
XW Alzhe
XW Ostec
XW Ostec
XW Mentri
XW ulce:
XX ABZ42
XX Homo
XX
                                                                                      G protein-coupled receptor; GPCR; antigenic peptide; gene therapy; g protein-coupled receptor modulator; antibody; immune-related disease; growth-related disease; cell regeneration-related disease; AIDS; cancer; immunological-related cell proliferative disease; autoimmune disease; Alzheimer's disease; atherosclerosis; infection; osteoarthritis; allergy; osteoporosis; cardiomyopathy; inflammation; Crohn's disease; diabetes; graft versus host disease; Parkinson's disease; multiple sclerosis; pain; psoriasis; anxiety; depression; schizophrenia; dementia; memory loss; mental retardation; epilepsy; asthma; tuberculosis; obesity; nausea; hypertension; hypotension; renal disorder; rheumatoid arthritis; trauma;
                                                                                                                                                                                                                                                                                                                                                           Human MrgX4 G protein-coupled receptor nucleotide SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                          04-MAR-2003 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABZ42602 standard; DNA; 1604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               947
                                                                       gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGG 1659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCTTCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTA 1601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACAGGACTITTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTA 1541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAACCTCTGCCCT-----GTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATGTGCATCTAGTTTCCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCCATCATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCGGCATTCTGGGGGCCCTAATTTACAGGATGCACCTGAATTTGGAAGTCTTATATTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTC 1245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAGGCTGTACGTGACCATCCTCCTCCACAGTGCTCGTCCTCCTCTGTGGCCTGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACGGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGAGGGCTCTGCAGGACAAGCCTGAGGTGGATAAAGGTGAAGGGCAGCTTCCTGAGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATGTTTATCTGGTTTGCATGTCCCTGTCCTCTAAACAGTAGTGCCAACCCCATCATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGTTTCCAGCCTGGTCGTGGTCAGGATCCTCTGTGGATCCCGGAAGATGCCGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGA
                                                                       dв
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTTGAGAGCAACACTGTCCTGCCACCCTTGACAATTACATGCGTTTTTCTTA 1486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BP.
                                                                                                                                                                                                                                                                                                                                                             NO:688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          946
```

Ş

밁 5 문 S 밁 Ş 밁 8 문 8 밁 ई 문 S 밁 δ 밁 Ş 밁

S 뭐

```
The present invention describes antigenic peptides (1) comprising: (a) cany one of 1601 sequences (see ABP82019 to ABP83619) of 12-24 amino composition of a particular GC acids. Also described: (1) an assay for the detection of a particular GC protein-coupled receptor (GPCR) or a candidate polypeptide in a sample; candidity for a particular GPCR. (1) can be used as GPCR modulators and in the therapy. The antigenic peptides for GPCRs are useful in detecting an antibody against a particular GPCR. (1) can be used as GPCR modulators and in the production of specific the cantibodies. The peptides and antibodies are also useful for detecting the gresence or absence of corresponding GPCRs. The antigenic peptides for GPCRs and antibodies are useful for diagnosing and designing drugs for treating immune-related diseases, growth-related diseases, cell cresence in autoimmune diseases, e.g. AIDS, Alzheimer's disease, constraintis, osteoporosis, cancer, cardiomyopathy, chronic and acute inflammation, allergies, Crohn's disease, diabetes, graft versus host can active, depression, schizophrenia, dementia, mental retardation, memory loss, epilepsy, asthma, tuberculosis, obesity, nausea, hypertension, cand cused in immunoassays and immunodiagnosis. ABZ42523 to ABZ42869 encode GPCR proteins given in ABP81675 to ABP82018, which are used in the campilation of the present invention
New isolated antigenic peptides e.g., for G protein-coupled receptors (GPCR), useful for diagnosing and designing drugs for treating condition which GPCRs are involved, e.g. AIDS, Alzheimer's disease, cancer or autoimmune diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Fig 1; 523pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19-DEC-2000; 2000US-0257144P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19-DEC-2001; 2001WO-US050107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200261087-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (LIFE-) LIFESPAN BIOSCIENCES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2003-046718/04.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABP81758.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Rough
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ĺ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INC.
```

cancer or conditions

Sequence 1604 BP; 337 A; 420 C; 399 G; 448 T; 0 U; 0 Other;

8 문 δ Ś 밁 δ 밁 밁 문 5 Matches 1090; Query Match Best Local Similarity 587 527 586 467 407 466 646 706 GGCTGACGTGCATCGTTTCCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCC GGGTCATCAGACTGGGGTTTTCTGAGCATGGATTCAACCCATCCCAGTCTTGGGTACAGAAC 525 TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG ACTTCCTCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCC TGGGCTACCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGCCGCAGCAG TGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCG TGCTGACGTGCATCATTTCCCTTGTCGGACTGACAGGAAACGCGGTAGTGCTCTGGCTCC TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAATCAGACCCTGAGCTTCACGG GGGGCACCAGACTAGAGTTTCTGAGCATGGATCCAACCGTCCCAGTCTTCGGTACAAAAC Conservative 38.7%; ۰, Score 1013.6; DB 8; Pred. No. 4.5e-273; Mismatches 104; Indels Length 4. Gaps 645 466 765 646 985

```
mas-related gene D; MrgD; Analgesic; Vulnerary; Ophthalmological;
                                                                                                                                                             ADH08536 standard; DNA; 1604
                                                                            25-MAR-2004
                                     DNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCGCCGCCCCAGATACCTGTCATCGGTCATGTGTGTCTCTGCTCTGGGCCCTGTCCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCCATCTGGTACCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATCTCATCCGCAAAATCCTCGTTTCTGTGATGACCTTTCCCTACTTTACAGGCCTGAGTA 766
                                                                                                                                                                                                                                                                                                                                                                                                                                             GACAGGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTTCTTA 1541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGCTCTGCCCT----GTCA 1481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAA 1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGGGTCCAGCCTGGTCCTGCTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGA 1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGCGGAGTATCCTGGAGTGGATGTTCTGTGAGTTCCTGTTTAGTGGTGCTGATTCTGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCGCCCCCACACACCTCTCAGCGGTCGTGTGTGTCCTGCTCTGGGGCCTGTCCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCCTACTTTATAGGCCTAAGCA
                                                                                                                                                                                                                                                                                                                                                                                 GCCTTCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTA 1601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCGGCATTCTGGGGGCCCTAATTTACAGGATGCACCTGAATTTGGAAGTCTTATATTGTC 1186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAGGCTGTACGTGACCATCCTGCTCACAGTGCTGGTCTTCCTCCTCTGCGGCCTGCCCT 1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTGTGGCCTGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCTGTTCTGTGGCCCATCTGGTACCGCT
                                                                                                                                                                                                                                                               ACCTGACAGTTGCACGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGG
                                                                                                                                                                                                                                                                                          ACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGG 1659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATGTTTATCTGGTTTGCATGTCCCTGTCCTCTAAACAGTAGTGCCAACCCCATCATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGTTTAGTATGCTGGAGTGGAGGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTAGTT
                                                                                                                                                                                                                                                                                                                                           {f A}{f G}{f A}{f G}{f G}{f C}{f T}{f C}{f A}{f G}{f C}{f C}{f T}{f C}{f C}{f G}{f A}{f A}{f A}{f A}{f G}{f C}{f T}{f G}{f C}{f C}{f T}{f C}{f C}{f T}{f G}{f A}{f G}{f A}{f A}{f A}
                                       MrgX4.
                                                                              (first
                                                                                                                                                             ΒP
                                                                                                                                                                                                                                                                 1604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1005
                                                                                                                                                                                                                                                                                                                                                                                                                          1486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               825
```

경 음

S 밁 S 문 ક БР S В 5 문 5 g 정 유

S 밁

문 S 밁

```
New mas-related gene D polypeptides, useful as therapeutics or in identifying agonists or antagonists that alter pain perception in a mammal for treating impaired sensory perception, e.g. chronic intractable
                                                                                                                 Disclosure; SEQ ID NO 32; 220pp; English
                                                                                                                                  pain or neuropathic pain.
                                                                                                                                                                                                                                      26-JUN-2002; 2002US-00183116
                                                                                                                                                                                                                                                                       08-JAN-2004
                                                                                                                                                                                                                                                      13-MAY-2003; 2003WO-US015004
                                                                                                                                                                                                                                                                                       WO2004003133-A1
                                                                                                                                                                                                                                                                                                                       sensory perception; glaucoma; Mrg;
                                                                                                                                                                                                                     (CALY ) CALIFORNIA INST OF TECHNOLOGY.
                                                                                                                                                                            2004-083025/08.
DB; ADH08537.
                                                                                                                                                                                                    Д,
                                                                                                                                                                                                   Dong
                                                                                                                                                                                                    ×
                                                                                                                                                                                                     Zylka M,
                                                                                                                                                                                                     Han S,
                                                                                                                                                                                                                                                                                                                        ds.
                                                                                                                                                                                                      Simon
```

8 밁 5 문 S 밁 5 밁

The present invention relates to an isolated mas-related gene D (MrgD) polypeptide. The MrgD polypeptides are useful as therapeutics or for identifying compounds, i.e. agonists or antagonists, that alter pain perception in a mammal. The compounds are useful for treating impaired sensory perception, e.g. chronic intractable pain or neuropathic pain, promoting wound healing, restoring normal sensitivity following injury, or treating ocular conditions, particularly those associated with pressure such as glaucoma. The Mrg genes or proteins may be used as molecular probes for the detection of cells or tissues related to or involved with sensory perception. The present sequence represents a MrgA (Mrg subfamily) encoding sequence.

Sequence 1604 BP; 337 A; 420 C; 399 G; 448 T; 0 U; 0 Other

DB 12;

Length

1604;

```
Ś
                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                 밁
                                                         S
                                                                                                  밁
                                                                                                                                   S
                                                                                                                                                                    밁
                                                                                                                                                                                              S
                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 38.7%; Score 1013.6; DB 1: Best Local Similarity 91.0%; Pred. No. 4.5e-273; Matches 1090; Conservative 0; Mismatches 104;
                               767
                                                                                                                                                                                                                                                                                                                                                                                                                                                              466 GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC
                                                                                                                                                                        647
                                                                                                                                                                                                                                       587
                                                                                                                                                                                                                                                                                                         527
                                                                                                                                                                                                                                                                                                                                                                          467
                                                                                                                                                                                                                                                                                                                                                                                                           526
                                                                                                                                                                                                                                                                                                                                                                                                                                            407
                                                                                                   707
                                                                                                                                     766
                                                                                                                                                                                                       706
                                                                                                                                                                                                                                                                                                                                          GGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCC
                                                                                                                                                                                                                                                                                                                                                                                               TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGGCACCAGACTAGAGTTTCTGAGCATGGATCCAACCGTCCCAGTCTTCGGTACAAAAC
   GCCGCCGCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCCTGTCCCTGC
                                                        TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGCCGTCCCTGTGGCCCATCTGGTACCACT
                                                                                                     ATCTCATCCGCAAAATCCTCGTTTCTGTGATGACCTTTCCCTACTTTACAGGCCTGAGTA
                                                                                                                       ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCA
                                                                                                                                                                        ACTTCCTCTTCCTCAGCTTCCAGATTATACGTTCGCCATTACGCCTCATCAATATCAGCC
                                                                                                                                                                                           ACTICCICTICCITAGCGGCCACATIAIAIGIICGCCGTIACGCCCTCAICAAIAICCGCC
                                                                                                                                                                                                                                       TGGGCTACCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGCCGCAGCAG
                                                                                                                                                                                                                                                            TGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCG
                                                                                                                                                                                                                                                                                                         TGCTGACGTGCATCATTTCCCTTGTCGGACTGACAGGAAACGCGGTAGTGCTCTGGCTCC
                                                                                                                                                                                                                                                                                                                                                                             TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAATCAGACCCTGAGCTTCACGG
                                   TÉCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCTGTTCTGTGGCCCCATCTGGTACCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                466
     945
                                                                       885
                                                                                                                                        825
                                                                                                                                                                                                                                          646
                                                                                                                                                                                                                                                                           705
                                                                                                                                                                                                                                                                                                             586
                                                                                                                                                                                                                                                                                                                                            645
                                                                                                                                                                                                                                                                                                                                                                                                               585
                                      826
                                                                                                         766
                                                                                                                                                                         706
                                                                                                                                                                                                                                                                                                                                                                             526
```

```
RESULT 15
ADC86588
ID ADC86
XX ADC86
XX
                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        음 성 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                         ds; gene;
guanosine
                   18-JUN-2002; 2002EP-00013517
                                                                                                                                                                                                             Human
                                                                                                                                                                                                                                              01-JAN-2004
                                                                                                                                                                                                                                                                                                                  ADC86588 standard; DNA; 1369
                                                      02-JAN-2003.
                                                                                                                        Homo
                                                                                                                                                                                                                                                                                ADC86588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1367
                                                                                                                                                                                                                                                                                                                                                                                                      1547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1307
                                                                                                                                                                                                                                                                                                                                                                                                                                        1602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1006
                                                                                                                       sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    827
                                                                                                                                                                                                             GPCR
                                                                                                                                                                                                                                                                                                                                                                                                                        ACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGG 1659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCTTCTGCCTCAGAAATGTCTCAGTGGTCCCCTCAAGGTCTTCGAATAGATGTTTTATCTA 1601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GACAGGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTTCTTA 1541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCT----GTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCCGGAAGATGCCGCTGA 1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTT 1005
                                                                                                                                                                                                                                                                                                                                                                                                       ACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GACGGGACTTTGAGAGCAACACTGTCCTGCCACCCTTGACAATTACATGCGTTTTTCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGAGGGCTCTGCAGGACAAGCCTGAGGTGGATAAAGGTGAAGGGCAGCTTCCTGAGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAA 1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGITTATCTGGITTGCATGTCCCTGTCCTAAACAGTAGTGCCAACCCCATCATIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCCATCATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCGGCATTCTGGGGGCCCTAATTTACAGGATGCACCTGAATTTGGAAGTCTTATATTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTGTTTCCAGCCTGGTCCTGCTGGTCAGGATCCTCTGTGGATCCCGGAAGATGCCGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCGCCGCCCACACACACCTGTCAGCGGTCGTGTGTGTCTCTGGGGGCCTGTCCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCAGGCTGTACGTGACCATCCTGCTCACAGTGCTGGTCTTCCTCCTCTGCGGCCTGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGTGTGAAACGTCAGATTTCATCCCAGTCGCGTGGCTGATTTTTTTATGTGTGGTTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGTTTAGTATGCTGGAGTGGAGGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTAGTT
                                                                                                                                                         triphosphate-binding protein coupled receptor; gene therapy.
                                                                                                                                                                             human; GPCR;
                                                                                                                                                                                                            gene
                                                                                                                                                                                                                                              (first
                                                                                                                                                                                                            SEQ
                                                                                                                                                                                                            IJ
                                                                                                                                                                                                                                              entry)
                                                                                                                                                                                                            NO:1041
                                                                                                                                                                                                                                                                                                                  ВP
                                                                                                                                                                                                                                                                                                                                                                                                       1604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  . 1481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    986
                  δ
                                                  밁
                                                                                 δ
                                                                                                                       밁
                                                                                                                                                δ
                                                                                                                                                                                日
                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                 श्च
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SXCCCCCCCXXXX PPTXX PXXX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 1369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2003-315783/31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-JUN-2001; 2001JP-00246789
                     1066
                                                                                      1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1088;
                                                      715
                                                                                                                        655
                                                                                                                                                                                           595
                                                                                                                                                                                                                                                                535
                                                                                                                                                                                                                                                                                               826
                                                                                                                                                                                                                                                                                                                                   475
                                                                                                                                                                                                                                                                                                                                                                                                       415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       466
                                                                                                                                                         946
                                                                                                                                                                                                                              986
                                                                                                                                                                                                                                                                                                                                                                   766
                                                                                                                                                                                                                                                                                                                                                                                                                                        706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADC86589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO 1041; 28pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Asai K,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       38.7%;
ilarity 91.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Akiyama Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Aburatani
```

NAT INST ADVANCED IND SCI & TECHNOLOGY CENT ADVANCED SCI & TECHNOLOGY INCUBAT INCUBATIO.

New polynucleotide, useful for preparing a composition for treating a patient in need of increased or suppressed activity or expression of the guanosine triphosphate-binding protein coupled receptor.

The invention relates to a novel polynucleotide encoding a guanosine triphosphate-binding protein coupled receptor (GPCR). A polynucleotide of the invention may have a use in gene therapy. The polynucleotide and polypeptide are useful for preparing a composition for treating a patient in need of increased or suppressed activity or expression of the guanosine triphosphate-binding protein coupled receptor. The polynucleotide sequences shown in ADC85548-ADC87616 encode GPCR's of the

BP; 279 A; 364 C; 342 G; 384 T; 0 U; 0 Other;

GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC Score 1012.2; DB 10 Pred. No. 1e-272; 0; Mismatches 103; DB 10; Indels Length 1369 4 Gaps

GGCTGACGTGCATCGTTTCCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCC 645 GTGGGTCCAGCCTGGTCGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGA 1125 GGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCT 1065 GCCGCCCCACACACCTGTCAGCGGTCGTGTGTGTCCTGCGGGGCCTGTCCCTGC GCCGCCCCAGATACCTGTCATCGGTCATGTGTGTCCCTGCTCTCGGCCCTGTCCCTGC ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCA ACTTCCTCTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCC TGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCG TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG GGGGCACCAGACTAGGGTTTCTGAGCATGGATCCAACCGTCCCAGTCTTCGGTACAAAAC TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCCATCTGGTACCACT ACTTCCTCTCAGCTTCCAGATTATACGTTTGCCATTACGCCTCATCAATATCAGCC TGCTGACGTGCATCATTTCCCTTGTCGGACTGACAGGAAACGCGGTTGTGCTCTGGCTCC TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAATCAGACCCTGAGCTTCACGG TGTTTAGTATGCTGGAGTGGAGGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTAGTT TGCGGAGTATCCTGGAGTGGATTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTT ATCTCATCCGCAAAATCCTCGTTTCTGTGATGACCTTTCCCTACTTTACAGGCCTGAGTA TGGGCTACCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGCCGCAGCAG 585 714 1005 705 654 885 534 825 234 774 945 594 474 765 414 354 294

	1602 ACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTT 1656 
1601 1314	1542 GCCTTCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTA
1541 1254	1482 GACAGGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTA
1481 1194	1426 CCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGACCTCTGCCCTGTCA
1425 1134	1366 AGAGGGCTCTGCAGGACACGCCTGAGGTGGAGGTGGAGGGTGGCTTCCTCAGGÀAA 
1365 1074	1306 ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC
1305 1014	1246 ATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTT
1245 954	1186 TTGGCATTCAGIGGGCCCTGTTTTCCAGGATCCACCIGGATTGGAAAGICTTATTTTGTC
1185 894	1126 CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCT
834	775 GTGTTTCCAGCCTGGTCCTGCTGGTCAGGATCCTCTGTGGATCCCGGAAGATGCCGCTGA

B 8 B 8

B 8 B 8 B

Search completed: October 29, 2004, 10:54:55 Job time: 1234 secs 음 성 음

8 8 8 8 8 8 8

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                 Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                 Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Scoring table:
                                                       ဂ ဂ
                                                                              O
                                                                                             a a
                                                                                                                             იი
                                                                                                                                                                  00000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Total number of hits satisfying chosen parameters:
 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                          586.8
562.6
544.2
544.2
516.5
504.6
486.4
483.4
468.8
317.6
317.6
317.6
317.6
317.6
                                                                                                                                                                 604.4
603.2
598.2
                                                                                                                                                                                                                                Score
                                                                                                                                                                                            606
                                                                                                                                                                                                                                                                                                                                                                                                                                                     seq length: 0
seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-867-570-1
2618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   October 29, 2004, 10:12:37 ; Search time 7917 Seconds (without alignments)
12049.920 Million cell updates/sec
                                                                                                                                                                                                                                Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                         Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  32822875 seqs, 18219865908 residues
                                                                                                          23.0
22.8
22.8
22.4
22.5
20.9
20.8
19.7
                                                                                                                                                                                                                                                                                                                                                                                                EST:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Copyright
                                                                                                                                                                                                                                                                                                              gb_est6:*
gb_gss1:*
gb_gss2:*
                                                                                                                                                                                                                                                                                                                                                         gb_est1:*
gb_est2:*
gb_htc:*
gb_est3:*
                                                                                                                                                                                                                                                                                                                                         gb_est4:*
gb_est5:*
                                                                                                                                                                                                                                Length DB
688
662
782
825
871
953
871
953
973
973
871
811
811
811
811
811
811
811
811
716
                                                                                                                                                                 889
863
835
764
827
924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GenCore version (c) 1993 - 2004
                                                                                                                                                                                            CA455045
CN835944
CN843633
                                            AG183584
CN831931
                                                              AQ392205
CN840024
                                                                                                           CN839125
CN839765
                                                                                                                             BG208126
CN843258
                                                                                                                                                                 CN831885
CN839634
                                                                                                                                                                                                                                H
  CD469292
                                                                                                                                                AV731610
                                                                                                                                                          BE439409
          CD468987
                   AK029369
                                                                                                                                                                                                                                                            SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5.1.6
Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  65645750
AQ392205 CITBI-E1-
CN840024 AGRNCOURT
AG183584 Pan trog1
CN831931 AGRNCOURT
AQ888076 HS 2142 B
B74348 CIT-HSP-204
AK029369 Mus muscu
CD468987 LeukoS2_1
CD469292 LeukoS2_3
                                                                                BG208126
CN843258
CN839125
CN839765
BG210740
CD051096
CN837763
                                                                                                                                                               BG198766
CN831885
CN839634
                                                                                                                                               BE439409
AV731610
                                                                                                                                                                                             CN835944
CN843633
                                                                                                                                                                                                                                Description
                                                                                                                                                                                                              CA455045 AGENCOURT
                                                                                                                                               AGENCOURT
REST18035
AGENCOURT
AGENCOURT
AGENCOURT
HTM1-025F
AV731610
                                                                                                  AGENCOURT
AGENCOURT
AGENCOURT
AGENCOURT
AGENCOURT
AGENCOURT
                                                                                 AGENCOURT
AGENCOURT
                                                                                                                                                                                                     AGENCOURT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2618
                                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                            ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 1
CA455045
                                                                                                                                                                                                                                                                                                                                                                                                LOCUS
DEFINITION
           ORIGIN
                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                              COMMENT
                                                                                                                                                                                                                                                                                                                                                     SOURCE
                                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                                                                                               EST
```

	Ω	O		
4 4 3 5 4 3	38 40 41 42	35 37	30 31 32	25 26 28
293.6 291.2 291	300.2 298.8 298.2 296.2 296	307.2 304.4 300.6	310.8 308.8 308.8 308.2	335.4 324.4 318.6
11.2 11.1 11.1	11.4 11.4 11.3 11.3	11.7 11.6 11.5	11.9 11.8 11.8 11.8	12.8 12.4 12.2 12.1
765 770 777	621 699 618 783 446	954 618 634 515	630 634 639	620 905 644
999	<b></b>	1647	0 0 0 0 0	თიი
CD469412 CD469131 CD467625	CD1470214 CR190735 CD470897 CD459424 AQ088761	CN842891 BI828553 CD535184 AL705589	CD470076 CD471204 CD471217 CD47517 CD467510 CD467799	AQ696198 CD243595 CD469930 CD470186
CD469412 LeukoS2_3 CD469131 LeukoS2_1 CD467625 LeukoS1_5			CD470076 LeukoS4_1 CD471204 LeukoS5_1 CD471217 LeukoS5_1 CD467510 LeukoS1_5 CD467799 LeukoS1_7	AQ696198 HS 2142_B CD243595 AGENCOURT CD469930 LeukoS4_2 CD470186 LeukoS4_3

## ALIGNMENTS

Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Kristi A. Egland, Ira Pastan
CDNA Library Preparation: Invitogen Corp
CDNA Library Preparation: Invitogen Corp
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 889)

NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC) Homo sapiens (human) CA455045 CA455045.1 GI:24905369 Plate: LLAM14285 row: h column: 07 High quality sequence stop: 743. found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov AGENCOURT\_10735784 MAPCL Homo CA455045 mRNA sequence. /lab\_host="EMDH10B"
/clone lib="MAPCL"
/clone lib="MAPCL"
/clone lib="MAPCL"
/note="Vector: pCMV-SPORT6; Site\_1: EcoRV; Site\_2: Not I;
Subtracted with brain, liver, lung, kidney and muscle.
Birectionally cloned. Priming method: oligo-dT. Average
insert size: 1800 bp. Library amplification: 26,000 fold.
Kristi A. Egland, James J. Vincent, Robert Strausberg,
Kristi A. Egland, James J. Discovery of new breast
Bungkook Lee & Ira Pastan: Discovery of new breast Manuscript submitted." /clone="IMAGE:6722551" /cell\_line="ZR-75-1, MCF7, SK-BR-3, MDA-MB-231, hTERT-HME1, LNCAP" cancer genes encoding membrane and secreted proteins. organism="Homo sapiens" /mol\_type="mRNA" /db\_xref="taxon:9606" ocation/Qualifiers . 889 989 pp bp mRNA linear EST 12-NOV-200 sapiens cDNA clone IMAGE:6722551 5', EST 12-NOV-2002 рe

```
RESULT 2
CN835944/c
LOCUS
                                                                                               KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                     경 유
                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                  REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                              VERSION
                                                                                                                                                              ACCESSION
                                                                                                                                                                                             DEFINITION
   AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                            1057
                                                                                                                                                                                                                                                                                                                                                                                                               738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       457
                                                                                                                                                                                                                                                                                       858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      731;
                                                                                                                               AGENCOURT 15864324 NIH MGC 145 Homo sapiens cDNA clone IMAGE:30706618 3', mRNA sequence. CN835944 CN835944.1 GI:47941599
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Butheria; Primates; Catarrhini; Hominidae; 1 (bases 1 to 863)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collect Unpublished (1999)
                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                              TGGTTCTCTGTGGGGTCCAGCCTGGTCCTGCTGGTCAGGATTCTCTGTGGATCCCCGGAAGA 1116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGTCCCTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGTACCACTGCCGCCGCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTTGGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCTTCACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTACAGAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTACAGAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AACGATAAGGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AATCCTCATGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGG
                                                                                                                                                                                                                                                                                                                    GGCCTGCCTTTGGCATTCAGTGGGCCCTGTT 1207
                                                                                                                                                                                                                                                                                                                                                                   TGCCGCTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCC-TCCTCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGTCCCTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGTACCACTGCCGCCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATATCCGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCCTACTTTATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCGCGGCCGACTTCCTCTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCA
                                                                                                                                                                                                                                                                                      GGCCTGCCCTTTTGGCATTTCAGGGGGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                               TGGNTCTCTGTGGGTCCAGCCTGGTCCTGGTCANGATTCTCTGTGGATCCCGGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTCTGTTTGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTGCATCCTCAACCTGG
                                                                                                               sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27.1%;
97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 709.2; DB 6;
Pred. No. 3.9e-174;
0; Mismatches 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                     Collection (MGC)
                                                                                Euteleostomi;
                                                                                                                                                                                                          EST 02-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ۲.
                                                                                                                                                                                                                                                                                                                                                                                  1175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       516
                                                                                                                                                                                                                                                                                                                                                     857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ۲,
                        5
                                                                  밁
                                                                                       5
                                                                                                                              밁
                                                                                                                                                           á
                                                                                                                                                                                           밁
                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 738; Conserv
                                     1169
                                                                                               1109
                                                                                                                                                            1049
                                                                  415
                                                                                                                               475
        355
                                                                                                                                                                                           535
                                                                                                                                                                                                                          989
                                                                                                                                                                                                                                                          595
                                                                                                                                                                                                                                                                                       929
                                                                                                                                                                                                                                                                                                                      655
                                                                                                                                                                                                                                                                                                                                                   698
                                                                                                                                                                                                                                                                                                                                                                                                                 608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Email: cgapbs-r@mail.nih.gov
Tissue Procurement: GPCR Consortium
cDNA Library Preparation: GPCR Consortium
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLN
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: IRBI4 row: e column: 11
High quality sequence stop: 719.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: Daniela S. Gerhard, Office of Cancer Genomics
                                                                                                                                                                                                                                                                                                                                        CCTCATCAATATCCGCCATCCCCAAAATCCCTCAGTCCTGTGATGACCTTTCCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AACCTGGTCGCGGCCGACTTCCTTCCTT-AGCGGCCACATTATATGTTCGCCGTTACG
                                 ccrcrereccrrreccarrecerrececcrrrrrrecaegarccaccregarre 1228
                                                                                                                                               TTTATGTGTGGTTCTCTGTGGGTCCAGCCTGGTCGTGGTCAGGATTCTCTGTGGATC
                                                                                                                                                                                                             TGGTGCTGATTCTGTTTGGTGTAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTT
                                                                                                                                                                                                                                                                          CTGGGCCCTGTCCCTGCTGCGGAGTATCCTGGAGTGGATCTTCTGTGACTTCCTGTTTAG
                                                                                                                                                                                                                                                                                                                    CTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                               CNTCATCAATATCAGCCATCTCATCGCAAAAATCTTCGTTTCTGTGATGACCTTTCCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCCTGCCCGCAGCAGACTTCTTCCTTCCGTCAGCTTCCAGATTATACGTTCGCCATTACG
                                                                                                 CCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCACAGTGCTGGTCTTCCT
                                                                                                                                                                                             TEGTECTEATTCTAGTTEGTETEAAACGTCAGATTTCATCCCAGTCGCGTGGCTGATTTT
                                                                                                                                                                                                                                                          CTGGGGGCCTGTCCCTGCTGTTTAGTATGCTGGAGTGGAGGTTCTGTGACTTCCTGTTTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Homo sapiens"
/mol type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:30706618"
/tissue_type="mixed"
/lab_host="DH108"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /Glone lib=WIH MGC 145"
//Glone lib=WIH MGC 145"
//note="Vector: pcDNA3.1; Site_1: varies by clone; ORPs were PcR-amplified and cloned into pcDNA3.1 by the GPCR Consortium. Cloning sites vary by clone and include the following: 5'-EccRV-XmmI/XhoI-3', 5'-EccRV-XmmI/NotI-3', EccRV (TA cloned, non-directional). For information about which gene each clones represents, please visit our anonymous ftp site at ftp://image.llnl.gov/image/rearrayed_plates/IRBI.preSV.data Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      . 863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 663.2; DB 7;
Pred. No. 4.3e-162;
D; Mismatches 84;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MD 20892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      863;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                þe
```

1168 416

296

1108

1048

536 988 596 928 656 716 808 776

2

S

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 3
CN843633/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ર્
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Shoor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryoča; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 835)

NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Betheeda, MD 20892
                                                                                                                                                                                                                                                                                                                                                                                                                                                 cDNA Library Preparation: GPCR Consortium (LLNL) CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Agencourt Bloscience Corporation Clone distribution: MGC clone distribution information can found through the I.M.A.G.E. Consortium/LLNL at: http://imagge.llnl.gov
Plate: IRBI4 row: e column: 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: cgapbs-r@mail.nih.gov
Tissue Procurement: GPCR Consortium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CN843633 835 bp rAGENCOURT 15658848 NIH MGC 145 Homo RMAGE: 30706619 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CN843633.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CN843633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCTGCCCTGTCAGTCAGACGGGACTTTGAGAGCAACACTGTCCTGC 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCTGCCCT----GTCAGACAGGACTTTGAGAGCAATGCTGCCCTGC 1511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCAGCTTCCTGAGGAAAGCCTGGAGCTGTCGGGAAGCAGATTGGGGCCATGAGGGAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACAAGCCTGAGGTGGATAAAGGTGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGCCAACCCCATCATTTACTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGAAGTCTTATATTTGTCATGTTTATCTGGTTTGCATGTCCCTGTCCTCTAAACAGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAG
                                                                                                                                                                                                                                                                                                                                                                                             e: IRBI4 row: e column: 12
quality sequence stop: 660.
Location/Qualifiers
           /tissue_type="mixed"
/lab_host="PH10B"
/clone_lib="NIH_MGC_145"
/clone_lib="NIH_MGC_145"
/clone_wvector: pcDNA3.1; Site_1: varies by clone; Site_2:
/note="vector: pcDNA3.1; Site_1: varies by clone into
pcDNA3.1 by the GPCR Consortium. Cloning sites vary by
clone and include the following: 5'-EcoRV-XmnI/Not1-3',
5'-EcoRV-XmnI/Not1-3', EcoRV (TA cloned, non-directional).
For information about which gene each clones represents,
please visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBI.preSV.dat
a Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                     /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:30706619"
                                                                                                                                                                                                                                                                                                                                                            organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                 L. .835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GI:47949288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mRNA 1
o sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EST 02-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       236
```

Query Match

23.1%;

Score

606;

DB

7;

Length 835;

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                   RESULT 4
BG198766/c
LOCUS
                                                                                                                                                                                   ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                    SOURCE
                                                                                                                                                                    KEYWORDS
                                                                                                                                                                                                                     DEFINITION
                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                    1504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1148
                                                                                                                                                                                                                                                                                                                                                                                                                     1448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1028 TACAATCGCGTGGCTGGTTTTTTATGTGTGGTTCTCTGTGGGTCCAGCCTGGTCCTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                     136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      736 TTCTGTGATGACCTTTCCCTACTTTACAGGCCTGAGTATGCTGAGCGCCATCAGCACCGA
                                                                                                                                                                    BG198766
RST18035 Athersys RAGE L:
BG198766
BG198766.1 GI:13720453
EST
                                                                                                                                                                                                                                                                                                                                                                                    76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       659;
                                                                                                                                                                                                                                                                                                                     16
Eukaryoča; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 764)

Harrington, J. J., Sherf, B., Rundlett, S., Jackson, P. D., Perry, R., Cain, S., Leventhal, C., Thornton, M., Ramachandran, R., Whittington, J., Lerner, L., Costanzo, D., McElligott, K., Boozer, S., Mays, R., Smith, B., Veloso, N., Klika, A., Hess, J., Cothren, K., Lo, K., Offenbacher, J., Danzig, J. and Ducar, M.
                                                                                                                                       Homo sapiens
                                                                                                                                                   Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                  TGCCCTGC 1511
                                                                                                                                                                                                                                                                                                                                                                                                       ATTGGAGCAGTGAGGAAGAACCTCTGCCCT----GTCAGACAGGACTTTGAGAGAGCAATGC 1503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTTTTGGCATTCAGTGGGCCCTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCCAGTCGCGTGGCTGATTTTTTTATGTGTGGTTCTCTGTGTTTCCAGCCTGGTCCTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGCTGGGAGTATCCTGGAGTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCGCTGCCTGTCCATCCTGTGCCCATCTGGTACCACTGCCGCCCCCAGATACCTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCTGTGATGACCTTTCCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCCATCAGCACCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTACAGGATGCACCTGAATTTGGAAGTCTTATATTGTCATGTTTATCTGGTTTGCATGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTTCCATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTCACAGTGCTGGTCTTCCTCTGCGGCCTGCCCTTCGGCATTCTGGGGGGCCCTAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGTCAGGATCCTCTGTGGATCCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCT
                                                                                                                                                                                                                                                                                                                     rerectee 9
                                                                                                                                                                                                                                                                                                                                                                                    ATTGGGGCCATGAGGGAGAGCCTCTGCCCTGTCAGTCAGACGGGACTTTGAGAGCAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGAGGTGGATAAAGGTGAAGGCAGCTTCCTGAGGAAAGCCTGGAGCTGTCGGGAAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACAAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCTGTCCTCTAAACAGTAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTAGTTGGTGTGAAACGTCAGATTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGCGGTCGTGTGTCCTGCTCTGGGGCCCTGTCCCTGCTGTTAGTATGCTGGAGTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCGCTGCCTGTTCTGTGGCCCATCTGGTACCGCTGCCGCCGCCCCACACACCTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                     Athersys RAGE Library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       90.5%; Pred. No. 4.2e-147;
tive 0; Mismatches 65;
                                                                                                                                                                                                                                   764 bp
                                                                                                                                                                                                                     Homo
                                                                                                                                                                                                                                      nRNA
                                                                                                                                                                                                                   sapiens cDNA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                     linear
                                                                                                                                                                                                                   mRNA sequence.
                                                                                                                                                                                                                                     EST 21-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                          77
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          677
```

```
Ś
                                                                         S
                                                                                                                                      S
                                                                                                                                                                                                                                    밁
                S
                                                                                                          멍
                                                                                                                                                                멍
                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches 672;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEMED
                                                                                                                                                                                                         1096
                                                                                                                                                                                                                                                                     1036
                                                                                                                                                                          344
                                                                                                                                                                                                                                                                                                   464
                                                                                                                                                                                                                                                                                                                                                                                                                               584
                                                                                                                                                                                                                                                                                                                                                                                              916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3201 Carnegie Ave,
Tel: 216 431 9900
Fax: 216 361 9596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Creation of genome-wide protein expression libraries using random activation of gene expression Nat. Biotechnol. 19 (5), 440-445 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Athersys, Inc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Scott
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Email: scain@athersys.com
High quality sequence stop
                                                                   TCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTTCCTGTCCG
                                                                                                                            TGCTGGTCTTCCTCCTCTGTGGCCCTGCCCTTTTGGCATTCAGTGGGCCCTGTTTTCCAGGA 1215
                                                                                                                                                                                             TTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCACAG
                                                                                                                                                                                                                                                      CGTGGCTGGTTTTTTTATGTGTGGTTCTCTGTGGGTCCAGCCTGGTCCTGCTCGTCAGGA 1095
                                                                                                                                                                                                                                                                                                    GCTTCCTGTTCAGTGGTGATTCTGCTTGGTGTCAAACATCAGATTTCATCACAGTCG
                                                                                                                                                                                                                                                                                                                        ACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACAATCG
                                                                                                                                                                                                                                                                                                                                                                                      TGTGTGTCCTGCTCTGGGGCCCTGTCCCTGCGGAGTATCCTGGAGTGGATGTTCTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                            TGTCCGTCCTGTGGCCCATCTGGTACCGCTGCCACCACCACACACCTGTCAGCGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGATGTTTTCCTACTTTTGCAGGCCTGAGCTTTCTGAGTGCCGTGAGCACCGAGCGCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGCTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTCGCCGTTACGCCTCATCAATAT-CCGCCATCCCATCTCCAAAATCCTCAGTCCTGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATCTACATCCTCAACATGGCCGCAGCAGACTTCCTCGTCCTCAGCGGGCCGCCTTATATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTC
                                                                                                                                                                          TTCTCTGTGGATCCCGGAAGATACCGCTGACCAGGCTGTACGTGACCATCCTGCTCACAG
                                                                                                                                                                                                                                        CGTGGCTGATTTTTTATGTGTGGTTCTCTGTGGGTCCAGCCCGGTCCTGCTGATCAGGA
                                                                                                                                                                                                                                                                                                                                                                 TGTGTGTCCTGGGGCCCTGTCCCTGCTGCGGAGCATCCTGGAGTGGATGTTATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCCCAGATACCTGTCATCGGTCA
                                                                                                             TACTGGTCTTCCTCTGTGGCCTGCCCTTTGGCATTCAGTTTTTCCTATTTTTATGGA
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /clone libe"Athersys RAGE Library"
/note="See 'Creation of Genome-wide Protein Expression
/note="See 'Creation of Genome-wide Protein Expression',
Libraries using Random Activation of Gene Expression',
Nature Biotechnology, in press. Note that even though the
cell type indicated is HT1080, since a random activation
method was used, these sequence tags are not necessarily
expressed in HT1080 under normal circumstances."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /mol_type="mRNA"
/db_xref="caxon:9606"
/cell_line="HTT1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 23.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cleveland,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 604.4; DB 4;
Pred. No. 1.1e-146;
0; Mismatches 76;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     scop:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   44115,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 764;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>ب</u>
                                                                              1275
                                                                                                                                                                                                         1155
                                                                                                                                                                                                                                                                                                                                   1035
                                                                                                                                                                                                                                                                                                                                                                                                                               525
                                                                                                                                                                                                                                                                                                                                                                                                                                                              915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         795
                   1335
                                                                                                             225
                                                                                                                                                                          285
                                                                                                                                                                                                                                        345
                                                                                                                                                                                                                                                                                                    405
                                                                                                                                                                                                                                                                                                                                                                 465
                                                                                                                                                                                                                                                                                                                                                                                                975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 5
CN831885/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
VERSION
                                          δ
                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           뭥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                   밁
                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      44
```

```
밁
                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 695; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgapbs-remail.nih.gov
Tissue Procurement: GPCR Consortium
cDNA Library Preparation: GPCR Consortium
cDNA Library Arrayed by: The I.M.A.G.E. Consortium
cDNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
plate: IRBI4 row: e column: 10
High quality sequence stop: 653.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1336 AAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGG 1395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              164 CTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTC 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 827)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished (1999)

Contact: Daniela S. Gerhard, Ph.D.

Office of Cancer Genomics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CN831885 827 bp mRNA linear ES' AGENCOURT_15669850 NIH MGC_145 Homo sapiens cDNA clone IMAGE:30706617 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CN831885.1 GI:47935638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (human)
                               CAGTCCTGTGATGACC-TTTCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGAAGGTGGAGGGTGGCTTCCTCAGGAAA 1425
CGTTTCTGTGATGACCTTTTCCCTACTTTACAGGCCTGAGTATGCTGAGCGCCATCAGCA
                                                                                                                    AATACGTTTCGCCATTTACGCCTCATCAATATTCAGCCCATCTCATTCCGCAAAATCCCT
                                                                                                                                                   ATTATATGTTCGCCGTTACGCCTCATCAATAT----CCGCCATCCCCATCTCCAAAATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACGCGTCTGAGGTGG
                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                               /clone lib="NIH_MGC_145"
/note="Vector: pcDNA3.1; Site_1: varies by clone; Site_2: varies by clone; ORFs were PCR-amplified and cloned into pcDNA3.1 by the GPCR Consortium. Cloning sites vary by clone and include the following: 5'-EcoRV-XmnI/XhoI-3', 5'-EcoRV-XmnI/NotI-3', EcoRV (TA cloned, non-directional). For information about which gene each clones represents, please visit our anonymous ftp site at ftp://image.llnl.gov/image/rearrayed_plates/IRBI.preSV.data Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:30706617"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /tissue_type="mixed"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      . .827
                                                                                                                                                                                                                                                                    23.0%;
                                                                                                                                                                                                                                        <u>.</u>
                                                                                                                                                                                                                                     Score 603.2; DB 7;
Pred. No. 2.3e-146;
0; Mismatches 88;
                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EST 02-JUN-2004
                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                        Gaps
                                                           843
                                                                                                                       741
                                                                                                                                                                               784
```

can

Ģ,

```
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                               RESULT 6
CN839634/c
LOCUS
                                                                                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ち 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ち 음 ち
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뭐
                                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                              VERSION
                                                                                                                                                                                                                                                                                                            ACCESSION
                                                                                                                                        TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                80
                                                                                                                                                                                                                                                                                                                                                                                                                                               20
                                                                                                                                                                                                                                                                                                          924 bp n
AGENCOURT 15864260 NIH MGC 145 Homo
IMAGE:30706614 3', mRNA sequence.
CN839634
Contact: Daniela S. Gerhard, Ph.D. Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: GPCR Consortium
cDNA Library Preparation: GPCR Consortium
cDNA Library Arrayed by: The I.M.A.G.B. Consortium
                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 924)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished (1999)
                                                                                                                                                                                                                                                                                            CN839634.1 GI:47945289
                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATGCTGCCCTGC 1511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCT----GTCAGACAGGACTTTTGAGAGCA 1499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAAACCCTGGAGCTGTCGGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCCATCATTTACTTCTTCGTGGGCTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGCTGGTCAGGATCCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGGTTCTCTGTGGGTCCAGCCTGGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTTGGTGTGAAACGTCAGATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGTCATCGGTCATGTGTGTCCTGCTCCTGGGCCCTGTCCCTGCTGCGGAGTATCCTGGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCGCCCAGATACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCCTGAGGTGGATAÄAGGTGAAGGGCAGCTTCCTGAGGAAAGCCTGGAGCTGTCGGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TAATTTACAGGATGCACCTGAATTTGGAAGTCTTATATTGTCATGTTTATCTGGTTTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           rcarccagregeregerarrititatereregerererereregerecagecregree
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGTCAGCGGTCGTGTGTCTTGCTCTGGGGGCCTGTCCCTGCTGTTTAGTATGCTGGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCGAGCGCTGCCTGTCTGTTCTGTGGCCCATCTGGTACCGCTGCCGCCCCCACACACC
                                                                                                                                                                                                                                                           sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                             mRNA
                                                                                                                                                                                                                                                                                                                                             sapiens
                                                                                                                                                                                                                                                                                                                                                               linear
                                                                                                                                                                                                                                                                                                                                             cDNA clone
                                                                                                                                                                                                                                                                                                                                                             EST 02-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    621
                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
       片
                             ð
                                                                      밁
                                                                                                ঠ
                                                                                                                                        밁
                                                                                                                                                               ঠ
                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches 659;
                                                                                                         1315
                                                                                                                                                                                                                                                                                                            1135
                                                                                                                                                                                                                                                                                                                                                                              1075
                                                                                                                                                                                                                                                                                                                                                                                                                                              1015
                                      1375
                                                                                                                                                                        1255
                                                                                                                                          288
                                                                                                                                                                                                         348
                                                                                                                                                                                                                                                                            408
                                                                                                                                                                                                                                                                                                                                             468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               588
       168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA Sequencing by: Agencourt Bioscience Corporation Clone distribution: MGC clone distribution informat: found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov plate: IRB14 row: e column: 07 High quality sequence stop: 602.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCATCAGCACCGAGCGCTGCCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCC
                                                                                             TGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTC
                                                                                                                                                                                                                             AGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATC
                                                                                                                                                                                                                                                                                            ACGTGACCATCCTCCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCTTTGGCATTC
                                                                                                                                                                                                                                                                                                                                                                GCCTGGTCCTGCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                 CGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGGTTCTCTGTGGGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCTGGAGTGGATGTTCTGTGAGTGCTGTTTAGTGGTGCTGATTCTGTTTTGGTGTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCAGATACCTGTCATCGGTCATGTGTGTGTGCTCTGCGCCCTGTCCCTGCTGCTGCGGAGTA
        TGCAGGACAAGCCTGAGGTGGATAAAGGTGAAGGGCAGCTTCCTGAGGAAAGCCCTGGAGC
                             TGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTTGCCTTCAGGAAACCCCTGGAGC
                                                                       TGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTC
                                                                                                                                        TEGTTTECATETCCTCTCTAAACAGTAGTGCCAACCCCATCATTTACTTCTTCG
                                                                                                                                                                          TAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCG
                                                                                                                                                                                                                                                                            ACGTGACCATCCTGCTCACAGTGCTGGTCTTCCTCCTCTGCGGCCTGCCCTTCGGCATTC
                                                                                                                                                                                                                                                                                                                                               GCCTGGTCCTGCTGGTCAGGATCCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                TGCTGGAGTGGAGGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTAGTTGGTGTGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCACACACTTGTCAGCGGTAGTGTGTGTCATGCTCTGGGGGCCTGTCCATGCTGTTTAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ccarcagcacccadececrecregicrericierecccarcregraccecreccecce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /Clone lib="NIH MGC_145"
//clone lib="NIH MGC_145"
//clone "Vector: pcDNA3.1; Site 1: varies by clone; Site 2:
varies by clone; ORPs were PCR-amplified and cloned into
pcDNA3.1 by the GPCR Consortium. Cloning sites vary by
clone and include the following: 5'-EcoRV-XmmI/XhoI-3',
5'-EcoRV-XmmI/NotI-3', EcoRV (TA cloned, non-directional).
For information about which gene each clones represents,
please visit our anonymous ftp site at
ftp://image.lln1.gov/image/rearrayed_plates/IRBI.preSV.dat
a Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Homo Bapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:30706614"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            tissue_type="mixed"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 598.2; DB 7;
Pred. No. 4.8e-145;
0; Mismatches 78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      information
```

4

Gaps

1434

169 1374 229

109

1314

1254

289

1194

349

1134

409

1074

469

1014

589 954 649 894 709 834

```
RESULT 7
BE439409
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
ACCESSION
VERSION
                         S
                                                                                 Ś
                                                                                                                밁
                                                                                                                                       5
                                                         밁
                                                                                                                                                                В
                                                                                                                                                                                                S
                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 22.4%;
Best Local Similarity 98.1%;
Matches 657; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1435
 385
                                                          325
                                                                                     757
                                                                                                                                              697
                                                                                                                                                                           205
                                                                                                                                                                                                      637
                                                                                                                                                                                                                                  145
                                                                                                                                                                                                                                                               577
                                                                                                                                                                                                                                                                                                                       517
                                                                                                                                                                                                                                                                                                                                                                                457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          108
                                                                                                                                                                                                                                                                                           85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Duke University
Duke Eye Center, Erwin Rd, Box
Tel: 919 681 4085
Fax: 919 684 8983
Email: pedro.gonzalez@duke.edu.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gonzalez,P., Epstein,D.L. and Borras,T.
Characterization of gene expression in human trabecular
using single-pass sequencing of 1060 clones
Invest. Ophthalmol. Vis. Sci. (2000) In press
Contact: Pedro Gonzalez
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HTM1-025F1 HTM1 Homo s
BE439409
BE439409.1 GI:9438891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Department of Ophthalmology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
             GCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCT
                                                       ATATCCGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAG
                                                                                                                                 TCGCGGCCGACTTCCTTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCA
                                                                                                                                                                                                                                                 GCTTCACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGC
                                                                                                                                                                                                                                                                                           GTACAGAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGA
                                                                                                                                                                                                                                                                                                            GTACAGAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGA
GCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCT
                                                                                                                                                                                          TCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGG
                                                                                                                                                                                                                                 GCTTCACGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGC
                                                                                                                                                                                                                                                                                                                                                   AACGATAAGGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGG
                                                                                                                                                                                                                                                                                                                                                                              AATCCTCATGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGG
                                                                                                                  TCGCGGCCGACTTCCTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCA
                                                                                                                                                                           TCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTGAGAGCAATGCTGCCCTGC 1511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCT----GTCAGACAGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (bases 1 to 688)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTGAGAGCAACACTGTCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /mol_type="mRNA"
/db_xref="taxon:9606"
/tissue_type="Trabecular meshwork"
/clone_lib="HTM1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1. .688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sapiens
                                                                                                                                                                                                                                                                                                                                                                                                         Score 586.8; DB 2;
Pred. No. 4.3e-142;
D; Mismatches 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Box 3802,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cDNA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Durham,
                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27710-3802,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EST
                                                                                                                                                                                                                                                                                                                                                                                                           6,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   meshwork
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25-JUL-2000
                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                            876
                                                                                                                                                                                                                                                                                                                        . 576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1490
                                                                                     816
                                                                                                                                                                                                      696
                                                                                                                                                                                                                                                               636
                                                                                                                                                                                                                                                                                           144
                                                                                                                                                                                                                                                                                                                                                   84
                                                                                                                  324
                                                                                                                                              756
                                                                                                                                                                                                                                  204
                                                                                                                                                                                                                                                                                                                                                                                516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          49
                                                         384
                                                                                                                                                                         264
                                                                                                                                                                                                                                                                                                                                                                                                           6
```

```
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 8
AV731610
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOURCE
ORGANISM
                        S
                                                       밁
                                                                               á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KEYWORDS
                                                                                                              Query Match
Best Local Similarity
Matches 621; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1117
                            1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       877
                                                         Ъ
                                                                                                                                                                                                                                                                                                                                                                                           Unpublished (2000)
Contact: Zeguang Han
Chinese National Human Genome Center at Shanghai
351 Guo Shoujing Road, Zhangjiang Hi-Tech Park, 1
201203, P. R. China
Tel: 86-21-50801919 (ex.45)
Fax: 86-21-50801922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gu,Y., Peng,Y., Song,H., Huang,Q., Yang,Y., Gao,G., Xiao,H., Xu,X.,
Li,N., Qian,B., Liu,F., Qu,J., Gao,X., Cheng,Z., Xu,Z., Zeng,L.,
Xu,S., Gu,W., Tu,Y., Jia,J., Fu,G., Ren,S., Zhong,M., Lu,G., Hu,R.,
Chen,J., Chen,Z. and Han,Z.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AV731610
AV731610 HTF Homo sapies
AV731610
AV731610.1 GI:10849155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 662)
                                                                                                                                                                                                                                                                                                                                                Email: hanzg@chgc.sh.cn
This clone is available at CHGC
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens cDNA HTF clones
TCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGATTCTCCCTTGATATTACCAA
                                                                        GTCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTAACCTGACAGTTGCAGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTCTTAGTGGTAACTCAAGGTCTTCAAATAATGTTTATCTAACCTGACAGTTGCAGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ပ္ပ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGTCCCTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGTACCACTGCCGCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGCAGCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGCCGCTGAC 1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGTTCTCTGTGGGTCCAGCCTGGTCCTGCTGGTCAGGATTCTCTGTGGATCCCGGAAGA 1116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTCTGTTTGGTGTG-AACGTCAGATTTCATTACAATCGCGTGGCTGG-TTTTTTATGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGTCCCTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTA
                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -TCTCTGTGGGTCCAG-CTGGTCCTGCTGGTCAGGA-TCTCTGTGGAT-CCGGAAGA
                                                                                                                                                                                                                               /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="HTPAKD08"
/tissue_type="Hypothalamus"
/dev_stage="Adult"
/lab_host="SOLR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HTF Homo sapiens cDNA clone
                                                                                                                                                                                       /clone_lib="HTF"
/note="Vector: pl
XhoI"
                                                                                                                                                                                                                                                                                                                                     . .662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             889
                                                                                                                              21.5%;
95.5%;
                                                                                                                 °,
                                                                                                               Score 562.6; DB 1;
Pred. No. 9.3e-136;
0; Mismatches 25;
                                                                                                                                                                                                     pBluescript
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    662 bp
                                                                                                                                                                                                                                                                                                                                                                  ä
                                                                                                                                                                                                                                                                                                                                                                  Shanghai
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mRNA
                                                                                                                                                                                                     вk(-);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HTFAKD08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     linear
D08 5',
                                                                                                                 Indels
                                                                                                                                            Length
                                                                                                                                                                                                     Site_1:
                                                                                                                                                                                                                                                                                                                                                                                                                                       Pudong,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EST 17-OCT-2000 mRNA sequence.
                                                                                                                                               662;
                                                                                                                                                                                                       EcoRI;
                                                                                                                 4
                                                                                                                                                                                                                                                                                                                                                                                                                                       Shanghai
                                                                                                                 Gaps
                                                                                                                                                                                                       Site_2:
                            1679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1056
                                                          60
                                                                                       1619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         936
                                                                                                                  4;
```

밁

61

```
RESULT 9
BG208126/c
LOCUS
                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                            SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       · 원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          श्च
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                    PEATURES
                                                                                                                                                                                                        COMMENT
                                                                                                                                                                                                                     JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                         TITLE
                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                   Harrington,J.J., Sherf,B., Rundlett,S., Jackson,P.D., Perry,R., Cain,S., Leventhal,C., Thornton,M., Ramachandran,R., Whittington,J., Lerner,L., Costanzo,D., McBlligott,K., Boozer,S., Mays,R., Smith,B., Veloso,N., Klika,A., Hess,J., Cothren,K., Lo,K Offenbacher,J., Danzig,J. and Ducar,M. Creation of genome-wide protein expression libraries using random activation of gene expression

Nat. Biotechnol. 19 (5), 440-445 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BG208126 787 b;
RST27616 Athersys RAGE Library
BG208126
                                                                                                                                                                                                                                                                                                                                                                                                Homo Bapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                Tel: 216 431 9900
Fax: 216 361 9596
Email: scain@athersys.com
                                                                                                                                                                                     Contact: Scott
Athersys, Inc.
                                                                                                                                                                                                                                                                                                                                                                                          Mammalia; Eutheria;
1 (bases 1 to 787)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BG208126.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTGAGGAGCCCTATAAATACACCCCAACCAGTCCATTTTGGCCATTGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTGAGGAG-CCTATAAATATGTCCCCACCAGTTTCATTTTTGGCCATTGGAA 2208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCCCCTTCCCCCTTGAGAACTGGTAAGTTCTTATTTAGCTCTTCCTGGACTAATGAACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTGTCATTTGTCCACA-CATGGTCACACGTTGG-CTTGGTTTCTAGNTAAGACAATCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTGTCATTTGTCCACAGCATGGTGACATGTTGGCCTTGGTTTCTAGTAAAGACAATCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGAGAGAGATTCTCCCTTCATAAAAACAGTCTTAGAAATTGGTTTTATGAATAGCCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGAGTTCTGCTACCTCTAAATTCCATTGAATTCTCAGATATAAAGCAAAATAATGTCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGAGTTCTGCTACCTCTAAATTCCATTGAATTCTCAGATATAAAGCAAAATAATGACCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATCATGTTCCCTTCTATGACTGGAGGCATTACTGCAGTTGGAAGCTCAATTCTTAATAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATCATGTTCCCTTTTATGACTGGAGGCATTACTGCAGTTGGAAGCTCAATTCTTAATAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCTGATAGTATCAAAAAGGAAGATTCCTTATTAATCTGTCAGACTATGTTCCCCTGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CATTGTAATAAAAGGAGTTCCTGTCCACAACCCCTAAAACTCTTCTTTATACTTGTTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CATTGTAATAAAAGGAGTTGCTGTCCACAACCCTAAAACTCTTCTTTATACTTGTTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TACATTTTCCCTGTTATCTTGCACTGAATCTTTCCTACTGAACACTTTTTCTGCACTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCCCCTT-CCCTTGAGAACTGGTAAGTGCTTATTTAGCTTTTCCTGGACTAACGGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGAGAGAGTTCTCCCTTCATAAAAACAGTCTTAGAAATTGGTTTTATGAATAGCCCTCT
                                                                                                                                                                     Carnegie Ave,
                                                                                 quality sequence stop: 1
Location/Qualifiers
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/cell_line="HT1080"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GI:13729813
                                                                                                                                                                                                       Cain
                                                                                                                                                                     Cleveland,
                                                                                                                                                                         웊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo
                                                                                                                                                                     44115,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mRNA 1
o sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EST 21-APR-2001 mRNA sequence.
                                                                                                                                                                                                                                                                                                                           Ь, к.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
```

```
/clone_lib="Athersys RAGE Library"
/note="See 'Creation of Genome-wide Protein Expression
/ibraries using Random Activation of Gene Expression',
Nature Biotechnology, in press. Note that even though the
cell type indicated is HT1080, since a random activation
method was used, these sequence tags are not necessarily
expressed in HT1080 under normal circumstances."
```

ORIGIN

```
ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                          δ
                                                                                                          밁
                                                                                                                                                    5
                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              श्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local
                                                      1407
                                                                                                                                                                         1347
                                                                                                                                                                                                                                                                                       1287
                                                                                                                                                                                                                                                                                                                                                                                                       1227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1047
                                                                                                                                                                                                                                152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     747
                                                                                                                92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  al Similarity
649; Conserv
32
                                 GGGTGGCTTCCTCAGGAAACCCTGGAG 1433
                                                                                                                                              AACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGA 1406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCCTCTGTGGCCTGCCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCCCAGAAGATGCCACTGACCAGGCTGTACATGACCAT-CTGCTCACAGTGCTGGTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGTGGTGCTGATTCTGTTTGGTGTGAAAACGTCAGATTTCATTACAATCGCGTGGCTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCTGGGCCCTGTCCCTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGCCCATCTGGTACCACTGCCGCGCGCCCCAGATACCTGTCATCGGTCATGTGTGTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TACTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGCCTCATCAATATCCGCCATCCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCAACCTGGTCGCGGCCGACTTCCTTCCTTAGCGGCCACATTATATGTTCGCCGTTA
TGGTGGTATCCTCAGGAAACCCTGGAG
                                                                                                                                                                                                                             AGTGCCAACCCCATCATTTACTTCTTCATGGGTTTCGTTAGGCAGCATCAAAATTAGCAG
                                                                                                                                                                                                                                                                 AGTGCCAACCCCATCATTTACTTCCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAG 1346
                                                                                                                                                                                                                                                                                                                                                   receaner criaratricical errected contributions of the contribution of the contribution
                                                                                                                                                                                                                                                                                                                                                                                  TGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCCTCTGCGGCCTGCCCATTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACATGGAC 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTTTTATGTGGGTTCTCTGTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGA 1106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGTGATGCTGATTCTGTTTGGTGTCAAACATCAGA-TTCATCACAGTTACGTGGCTGATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCTGGGCCCTGTCCCTGTAGAGCATCCTGGAGTGGATGTTCTGTGACTCCCTGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGCCCATCTGGTAACGCTGCCGCCACCCC--ACACCTGCCAACGGTCGTGTGTGTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TACTTGGCAGGCCTGAATATTCTGAGTGCCATGAGCACCAAGCGCTGCCTGTCAATCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGCCTCATCAATAACGTCCATCCCATCTCTAATCCTTTAGCCTGTGATGACCTTTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGCAGCTGGGGGGGGGGGCGACTTCCTCTTCTTCACCAGCCACAGTAT-CCATCCCTGTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20.9%;
nilarity 86.9%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 548.2; DB 4;
Pred. No. 5.8e-132;
0; Mismatches 93;
6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                1286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     689
                                                                                                                                                                                                                                      93
                                                                                                                                                                                                                                                                                                                                                      153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           908
```

RESULT 10 CN843258/c LOCUS

ACCESSION VERSION DEFINITION CN843258 825 bp AGENCOURT 15669738 NIH MGC 145 Ho IMAGE:30706610 5', mRNA sequence. CN843258 CN843258.1 GI:47948913 Homo mRNA linear EST sapiens cDNA clone

```
JOURNAL COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
TITLE
                                                                                                         밁
                                                                                                                                        Ś
                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                     Ś
                                   밁
                                                                      ঠ
                                                                                                                                                                               밁
                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
                                                                                                            485
                                                                                                                                              998
                                                                                                                                                                                 545
                                                                                                                                                                                                                  938
                                                                                                                                                                                                                                                     605
                                                                                                                                                                                                                                                                                                                                                                                                                  761 CCGCCATCCCAAAAATCCT--CAGTCCTGTGATGACCTTTCCCTACTTTATAGGC 818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      620;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unpublished (1999)
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 (bases 1 to 825)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
Plate: IRBI4 row: e column: 03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Email: cgapbs-r@mail.nih.gov
Tissue Procurement: GPCR Consortium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mammalia; Eutheria; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDNA Library Preparation: GPCR Consortium (LLNL) CDNA Library Arrayed by: The I.M.A.G.B. Consortium (LLNL) DNA Sequencing by: Agencourt Bioscience Corporation Clone distribution: MGC clone distribution information can be
GCCGCTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGG 1177
                                                           GGTTCTCTGTGGGTCCAGCCTGGTCCTGCTGCTGGAGATTCTCTGTGGATCCCGGAAGAT 1117
                                                                                                                             TTCTGTTTGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGT 1057
                                                                                                                                                                                                                                                                                                                                                             CTAAGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGG 878
                                                                                                            TTCTGCTTGGTGTCAAACATCAGATTTCATCACAGTCGCGTGGCTGATTTTTTATGTGT
                                                                                                                                                                                 GTCCCTGCTGCGGAGCATCCTGGAATGGATGTTATGTGGCTTCCTGTTCAGTGGTGCTGA
                                                                                                                                                                                                                  GTCCCTGCTGCGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGA 997
                                                                                                                                                                                                                                                                                     TACCACTGCCGC-CGCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCT
                                                                                                                                                                                                                                                                                                                           CCCCCATCCCATCTCTAAAAATCTTCTATCCCTGTGATGATGTTTTCTACCCTGGCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               quality sequence start: 21 quality sequence stop: 561.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Homo sapiens"
/mol type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:30706610"
/tissue_type="mixed"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /clone lib="NIH_MGC_145"
/note="Vector: pcDNA3.1; Site 1: varies by clone; Site 2: varies by clone; ORFs were PCR-amplified and cloned into pcDNA3.1 by the GPCR Consortium. Cloning sites vary by clone and include the following: 5'-EcoRV-XmnI/XhoI-3', 5'-EcoRV-XmnI/NoI-3', EcoRV (TA cloned, non-directional). For information about which gene each clones represents, please visit our anonymous ftp site at ftp://image.llnl.gov/image/rearrayed_plates/IRBI.preSV.data Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                . 825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 544.6; DB 7;
Pred. No. 5.1e-131;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      69;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 825;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                            426
                                                                                                                                                                                 486
                                                                                                                                                                                                                                                                                        937
                                                                                                                                                                                                                                                     546
                                                                                                                                                                                                                                                                                                                           606
                                                                                                                                                                                                                                                                                                                                                                                                666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 11
CN839125
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOURCE
ORGANISM
   ORIGIN
                                                                                                                                                                                                                                                                                                                             PEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      65
```

```
AGENCOURT 15864180 NIH MGC 145 Homo sapiens cDNA clone IMAGE:30706609 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Email: cgapbs-remail.nih.gov
Tissue Procurement: GPCR Consortium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 871)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CDNA Library Preparation: GPCR Consortium (LLNL) CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Agencourt Bioscience Corporation Clone distribution: MGC clone distribution information can found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Contact: Daniela S. Gerhard, Ph.D. Office of Cancer Genomics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CN839125.1 GI:47944780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            High quality sequence stop: 701.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Plate: IRBI4 row: e column: 02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCAGGAAACCCTGGAGCTGTCGGGAAGCAGAT 1449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCGCTGACTAGGCTGTACGTGACCATCCTGCTCACAGTACTGGTCTTCCTCCTCTTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATCATTTACTTCCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTTGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTGCCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGAGGAAATCCTGGAGCTGTCGGGAAGCAGAT 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGTTCTCCAGAGGGCTCTGCAGGACGCGTCTGCAGGTGGATGAAGGTGGAGGGCAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGTTCTCCAGAGGGCTCTGCAGGACACGCCTG-AGGTGGATGAAGGTGGAGGGTGGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATCATTTACTTCCTTCCTCCCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTTTGTCATGTTCATCTAGTTTCTATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTGCCCTTTGGCATTCAGTTTTTCCTATTTTTATGGATCCACGTGGACAGGGAAGTCTT
/clone lib="NIH MGC 145"
/clone lib="NIH MGC 145"
/note="Vector: pcDNA3.1; Site 1: varies by clone; Site 2:
/note="Vector: pcDNA3.1; Site 1: varies by clone inTo
varies by clone; ORFs were PCR-amplified and cloned inTo
pcDNA3.1 by the GPCR Consortium. Cloning sites vary by
clone and include the following: 5'-EcoRV-XmmI/XhOI-3',
5'-EcoRV-XmmI/NotI-3', EcoRV (TA cloned, non-directional).
For information about which gene each clones represents,
please visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBI.preSV.dat
a Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                              organism="Homo sapiens"

mol_type="mRNA"

db_xref="taxon:9606"

"db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1. .871
                                                                                                                                                                                                                                                                                                                         tissue_type="mixed"
/lab_host="DH108"
                                                                                                                                                                                                                                                                                                                                                                                           clone="IMAGE:30706609"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EST 02-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     306
```

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                               KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                     RESULT 12
CN839765/c
                                                                                                                                                                                                                                           ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                          음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ર્શ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                         DEFINITION
                                                                                                                                                                                                                                                                                                         POCUS
                                                                                           COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 575; Conserv
                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         675
                                                                                                                                                                                                                                                                                                                                                                                   795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               702
                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 953)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished (1999)
                                                                                                                                                                                                                                                                      CN839765 953 bp n
AGENCOURT 15864292 NIH MGC 145 Homo
IMAGE:30706616 3', mRNA sequence.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: GPCR Consortium
cDNA Library Preparation: GPCR Consortium
                                          Contact: Daniela S. Gerhard, Ph.D. Office of Cancer Genomics National Cancer Institute / NIH Bldg. 31 Rm10A07 Bethesda, MD 20892
                                                                                                                                                                                                                                           CN839765
CN839765.1 GI:47945420
                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                     CTCTGTGGGTCCAGCCTGG-TCCTGGTGGTCAGGATTCTCTGTGGATCCCGGAAGA 1116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCCAGGGTCACCAGACTAGGGTTTCTGAGCATGGATCCAACCATCTCAACCTTGGACACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCATGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACGGTGCTGACGTGCATCGTTTCCCTTGTCGGGCTGACAGGAAACGCAGTTGTGCTCTGG
                                                                                                                                                                                                                                                                                                                                                                                 CTCTGGGGGTCCAGCCTGGCTGCTGATTACGATCCTCTGGGGATTCCCGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                             GCTTGGTGTCCAACATCAGATTTCATCACAGTCGCGTGGCTGATTTTTTTATGTGTGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGCTGCCACCCCCACACCCTGTCAGCGGTGGTGTGTGTCCTGCTCTGGGCCCTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCCATCCTGTGGCCCATCTGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCCATACCATCTCTAAAATCCTCTATCCTGTGATGATGTTTTTCCTACTTTGCAGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCAGACTTCCTCAGCGGCCGCCTTATATATTCCCTGTTAAGCTTCATCAGTATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCGACTTCCTCTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCCTGGGCTGCCGCATGCGCAGGAACGCCTTCTCCATCTACATCCTCAACTTGGCCGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCG
                                                                                                                                                                                                                 sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 516; DB 7; 1
Pred. No. 1.6e-123;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                       mRNA linear ES'
o sapiens cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 871;
                                                                                                                                                                                                                                                                                                    EST 02-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                   850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          374
               S
                                             밁
                                                                        S
                                                                                                         片
                                                                                                                                S
                                                                                                                                                                   밁
                                                                                                                                                                                            S
                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local S
Matches 577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                                                                                                                                       1155
                                                                                                                                                                                                                                                                                                                                                                                 1095
                                                                                                                                                                                                                                                                                                                                                                                                                                             1035
                                                                                                                                                                                                  1275
                                                                                                                                                                                                                                                           1215
                                                                                                                                                                                                                               328
                                                                                                                                                                                                                                                                                         388
                                                                                                                                                                                                                                                                                                                                                     448
                                                                                                                                                                                                                                                                                                                                                                                                                508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              958
                                                                                                         208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 577;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       riate: IRBI4 row: e column: 09
High quality sequence stop: 578.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTAAACGTCAGATTTCATTACAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTGGGTGTCCTACTCTGGGGCCTGTCCCTGCTGTTTAGTATGCTGGAGTGGAGGTTCTGT
 CAGTGAGGAAGAACCTCTGCCCT----GTCAGACAGGACTTTGAGAGCAATGCTGCCCTG
                                                                                                                                                                                                                                                                                                         GIGCIGGICTICCICCICIGIGGCCCIGCCCTITGGCAITCAGIGGGCCCTGTTITCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                GCGTGGCTGGTTTTTTATGTGTGGTTCTCTGTGGGTCCAGCCTGGTCCTGCTCGTCAGG
                                                                GATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTGGAG
                                                                                                                             CAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAGGTG
                                                                                                                                                                     TCTCTAAACAGTAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGT
                                                                                                                                                                                       ATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTCCTGTCC
                                                                                                                                                                                                                                                                                                                                                                    ATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTCACA 1154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GACTTCCTGTTTAGTGGTGCTGATTCTAGTTGGTGTGAAACGTCAGATTTCATCCCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATGTGTGTCCTGCTCTGGGCCCTGCCTGCGGAGTATCCTGGAGTGGATGTTCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCCCAGATACCTGTCA-TCGGTC
                                                GATAAAGGTGAAGGGCAGCTTCCTGAGGAAAGCCTGGGAGCTGTCGGGAAGCAGATTGGGG
                                                                                                          CAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACAAGCCTGAGGTG
                                                                                                                                                                                                                               ATGCACCTGAATTTGGAAGTCTTATATTGTCATGTTTATCTGGTTTTGCATGTCCCTGTCC
                                                                                                                                                                                                                                                                                                                                                     ATCCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTGCTCACA
                                                                                                                                                                                                                                                                                                                                                                                                               GCGTGGCTGATTTTTTATGTGTGGTTCTCTGTGTTTTCCAGCCTGGTCCTGCTGGTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:30706616"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 504.6; DB 7;
Pred. No. 1.6e-120;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
```

Gaps

1214

389

329

1094

449

1034

569 974 629

509

1334

209

1274

269

1510

```
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: IRBI4 row: e column: 09
                                                                                                          /tissue_type="mixed"
/lab host="DH10B"
/clone_lib="NH10B"
/clone_lib="NH10B"
/clone_lib="NH1MGC_145"
/clone_lib="NH1MGC_145"
/note="vector: pcDNA3.1; Site_1: varies by clone; Site_2:
/note="vector: pcDNA3.1; Site_1: varies by clone and cloned into
pcDNA3.1 by the GPCR Consortium. Cloning sites vary by
clone and include the following: 5'-EcoRV-XmmI/XhoI.3',
5'-EcoRV-XmmI/NotI-3', EcoRV (TA cloned, non-directional).
For information about which gene each clones represents,
please visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBI.preSV.dat
a Note: this is a NIH_MGC_Library."
Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             å
```

```
밁
                                                                             S
                                                                                                                                             Ś
                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 13
BG210740/c
                  Ş
                                                                                                                뮹
                                                                                                                                                                              밁
                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                           ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Snoo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1511 C 1511
                                                                                                                                                                                                                                                                            845
                                                                                                                  461
                                                                                                                                                                                                               905
                                                                                                                                                                                                                                                                                                            528;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28 C 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Harrington,J.J., Sherf,B., Rundlett,S., Jackson,P.D., Perry,R., Cain,S., Leventhal,C., Thornton,M., Ramachandran,R., Whittington,J., Lerner,L., Costanzo,D., McElligott,K., Boozer,S., Mays,R., Smith,E., Veloso,N., Klika,A., Hess,J., Cothren,K., Lo,K., Offenbacher,J., Danzig,J. and Ducar,M.
Creation of genome-wide protein expression libraries using random activation of gene expression
activation of gene expression

Nat. Biotechnol. 19 (5), 440-445 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3201 Carnegie Ave, Cleveland, OH 44115,
Tel: 216 431 9900
Fax: 216 361 9596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BG210740 871 bp r
RST30287 Athersys RAGE Library Homo
BG210740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Athersys, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Contact: Scott J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mammalia; Eutheria;
1 (bases 1 to 871)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BG210740.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: scain@athersys.com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11329013
GCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCAT
                                                                                  CATTACAATCGCGTGGCTTGTTTTTTATGTGTGGTTCTCTGTGGGTCCAGCCTGGTCCT
                                                                                                                                                                                                          GTCATCGTCATGTGTGTCTGCTCTGGGCCCTGTCCCTGCTGCGGAGTATCCTGGAGTG
                                                                                                                                                                                                                                                               CGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCGCCCAGATACCT
                                                                                                                                                GATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTT
                                                                                                                                                                               GTCAGCGGTGGTGTGTCTTGCTCTGGGCCCTGTCCNTGCTGCGGAGCATCCTGGAGTG
                                                                                                                                                                                                                                             CGAACCCCGCCTGTCCGTCCTGT-GCCCATCTGGTCCGTTAGCTACCGCCCCACACACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCATGAGGGAGAGCCTCTGCCCTGTCAGTCAGACGGGACTTTGAGAGCACCACTGTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  quality sequence stop: 456.
                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                      /clone lib="Athersys RAGE Library"
/note="See 'Creation of Genome-wide Protein Expression',
Libraries using Random Activation of Gene Expression',
Nature Biotechnology, in press. Note that even though the
cell type indicated is HT1080, since a random activation
method was used, these sequence tags are not necessarily
expressed in HT1080 under normal circumstances."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/cell_line="HT1080"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GI:13732427
                                                                                                                                                                                                                                                                                                                       18.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chordata; Craniata; Vertebrata; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                        Score 486.4; DB 4;
Pred. No. 9.3e-116;
D; Mismatches 52;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sapiens cDNA, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  USA
                                                                                                                                                                                                                                                                                                                                        Length 871;
                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EST 21-APR-2001
                                                                                                                                                                                                                                                                                                          1;
                                                                                                                                                                                                                                                                                                            Gaps
                                                                                 1084
                   1144
                                                                                                                                                 1024
                                                                                                                                                                                                             964
                                                                                                                                                                                                                                             522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29
                                                   342
                                                                                                                  402
                                                                                                                                                                                                                                                                            904
                                                                                                                                                                               462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCUS
DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 14
CD051096
   S
                                  밁
                                                           Ś
                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMENT
                                                                                                Query Match
Best Local Similarity
Matches 552; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                           Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (human)
    TTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACC
```

```
341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Tissue Procurement: Dr. Jamie Thompson, University of WI cDNA Library Preparation: Gina Zastrow-Hayes cDNA Library Preparation: Gina Zastrow-Hayes cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Agencourt Bioscience Corporation Clone distribution: MGC clone distribution information can found through the I.M.A.G.E. Consortium/LLNL at: http://lmage.llnl.gov plate: NDKM39 row: e column: 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            924 bp n
AGENCOURT_13981113 NIH_MGC_173 Homo
CD051096 CD051096.1 GI:30488660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 (bases 1 to 924)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Email: cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCTGAGGTGGAAGGTGGAGGGTGGCTTCCTCAGGAAA 1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTTTTGGCATTCAGTGGGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCTGATCAGGATTCTCTGTGGATCCCGGAAGATACCGCTGACCAGGCTGTACGTGACCAT
AGAAAAAGATAAGGGTCACCAGACTAGGGTTTCTGAGCATGGATCCAACCATCTCAACC
                           AGCAAATCCTCATGGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTCCCTGTCCGCTCTTAACAGCAGTGCCAACCCCCATCATTTACTTCTTCGTGGGCTCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTTTTATGGATCCACGTGGACAGGGAAGTCTTATTTTGTCATGTTCATCTAGTTTCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCAT 1264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTCTGAGGTGGATGAAGGTGGAGGCAGCTACCTGAGGAAA 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTT 1324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCTGCTCACAGTACTGGTCTTCCTCCTCTGTGGCCTGCCCCTTTGGCATTCAGTTTTTCCT
                                                                                        18.5%;
nilarity 87.5%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                               e: NUKMJY row: e column: 24
quality sequence start: 3
quality sequence stop: 741.
Location/Qualifiers
                                                                                                                                                                                                             /clone_lib="NIH_MGC_173"
/note="Vector: pDONR201;
LIBR_PRIMING - oligo dT;
LIBR_PROVIDER - Bradfield
                                                                                                                                                                                                                                                                                                                                                                                organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                               tissue_type="embryonic trophoblasts,
                                                                                                                                                                                                                                                                                                          lab_host="DH10B TonA"
                                                                                           0
                                                                                                                 Score 483.4; DB 6;
Pred. No. 5.8e-115;
                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                     Site 1: attP2; Site 2: attP1; METHOD - full-length enriched
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gene Collection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear E
                                                                                             Indels
                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                         made
                                                                                                                                          924;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EST 09-MAY-2003
, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                            from
                                                                                           ω
--
                                                                                                                                                                                                                                        enriched;
                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                            WA01 stem
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          þe
                                                 512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1204
  289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      222
                                                                                             N
```

```
REFERENCE
AUTHORS
TITLE-
                                                                                                                                                                                                                                                                                                                                                                                                       VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 15
CN837763/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  중 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   중 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                               FEATURES
                                                                                                                                                                                                                                                                     COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rocus
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                  JOURNAL
                 source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    350 TIGAGCCICACGGTCCTGACGTGCATCGTTTCCCTTGTCGGGCTGACAGGAAACGCGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    573 CTGAGCTTCACGGGGCTGACGTGCATTCCCTTGTCGCGCTGACAGGAAACGCGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       290
                                                                                                                                                                              Contact: Daniela S. Gerhard, Ph.D. Office of Cancer Genomics National Cancer Institute / NIH Bldg. 31 Rm10A07 Bethesda, MD 20892 Email: cgapbs-r@mail.nih.gov
Tissue Procurement: GPCR Consortium
                                                             CDNA Library Preparation: GPCR Consortium (LLNL) CDNA Library Arrayed by: The I.M.A.G.B. Consortium (LLNL) DNA Sequencing by: Agencourt Bioscience Corporation Clone distribution: MGC clone distribution information can found through the I.M.A.G.B. Consortium/LLNL at: http://image.llnl.gov plate: IRBI4 row: e column: 04
                                                                                                                                                                                                                                                                                              1 (bases 1 to 1009)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                       CN837763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CN837763 1009 bp n
AGENCOURT 15864212 NIH MGC 145 Homo
IMAGE:30706611 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                      CN837763.1
                                                                                                                                                                                                                                                                                   Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTGGCCGCAGCAGACTTCCTCTTCCTCAGCGGCCGCCTTATATATTCCCTGTTAAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TATGTGTGGGTTCTCTGTGGGTCCAGCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               --ATGTGTGGTTCTCTGTGGGTCCAGCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGCTGATTCTGCTTGGTGTCAAACATCAGATTTCATCACAGTCGCGTGGCTGATTTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGCTGATTCTGTTTGGTGTAAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCCCTGTCCCTGCGGAGGATCCTGGAGTGGATGTTATGTGGCTTCCTGTTCAGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCCCTGTCCCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATCTGGTACCACTGCCGCCGCCCCAGATACCTGTCATC-GGTCATGTGTGTGTCCTGCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATCAGTATCCCCCATACCATCTCTAAAATCCTCTATCCTGTGATGATGTTTTCCTACTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATCAATATCCGCCATCCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTTCCCTACTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGGTCGCGGCCGACTTCCTCTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCCTTCTCCATCTACATCCTCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTGGACACAGAACTGACACCAATCAACGGAACTGAGGAGACTCTTTGCTACAAGCAGAACC
                               quality sequence stop: 464.
Location/Qualifiers
organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                        GI:47943418
                 .1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear EST
s cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EST 02-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    752
```

```
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                           Ś
                                                            밁
                                                                                         S
                                                                                                                             밁
                                                                                                                                                       ঠ
                                                                                                                                                                                              片
                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                            ş
                                                                                                                                                                                                                                                                                                                                                                                                  片
                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORIGIN
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches 509;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                1368
                                                                                                                                                                                                                               1248
                                                                                                                                                                                                                                                                                                1188
                                                                                                                                                                                                                                                                                                                                                                                                                                1068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1008
                                                                                                                                                               1308
                                                                                                                                                                                                                                                                                                                                371
                                                                                                                                                                                                                                                                                                                                                                                                431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 491
                                                                 131
                                                                                                                                191
                                                                                                                                                                                                251
                                                                                                                                                                                                                                                               311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  611 CGCCACAACAACGCCTATCAAACGATGATGCATAACGAGCTCAGGCCCCAGTCCCAGGTG
71
                  CTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGA 1463
                                                                                  AGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACC
                                                                                                                                                                                                                                                                                       GGCATTCAGIGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCAT
                                                                                                                                                                                                                                                                                                                                                  AGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGGCCTGCCCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGCCGCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGCTG
                                                                                                                                  TTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAG
                                                                                                                                                 TTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAG
                                                                                                                                                                                                GTTCATCTAGTTTCTATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTAC
                                                                                                                                                                                                                   GTGCATCTAGTTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCCATCATTTAC
                                                                                                                                                                                                                                                                                                                               GGGTCCAGCCTGGTCCTGATCAGGATTCTCTGTGGATCCCCGGAAGATACCGCTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                GGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACC 1127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGGAGCATACTGGAATGGATATTATGTGGCTTCCTGTTCAGTGGTGCTGATTTTGCTTGG
CTGGAGCTGTCGGGAAGCAGATTGGATCAGTGAGGA
                                                                 AGGGCTCTGCAGGACGCGTCTGAGGTGGATGAAGGTGGAGGGCAGCTTCCTGAGGAAATC
                                                                                                                                                                                                                                                               GGCATTCAGTTTTTCCTATTTTTATGGATCCACGTGGACAGGGAAGTCTTATTTTGTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGTCAAACATCAGATTTCATCACAGTAGCGTGGCTGATTTTTTTATGTGTGGTTCTCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /clone="IMAGE:30706611"
/tlosue_type="mixed"
/lab host="DH108"
/lab host="DH108"
/clone lib="NIH MGC 145"
/clone lib="NIH MGC 145"
/clone lib="NIH MGC 145"
/clone lib="NIH MGC 145"
/clone lib="NIH MGC 16"
/clone lib="NIH MGC 16"
/clone lib="NIH MGC 16"
/clone and include the following: 5'-EcoRV-XmmI/XhoI-3',
5'-EcoRV-XmmI/NotI-3', EcoRV (TA cloned, non-directional).
For information about which gene each clones represents,
Please visit our anonymous ftp site at
ftp://image.llnl.gov/image/rearrayed_plates/IRBI.preSV.dat
a Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 468.8; DB 7;
Pred. No. 4e-111;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   67;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                   192
                                                                                                                                                                                                                                                                                                                                                                                                   372
                                                                                                   1427
                                                                                                                                                                                                                                    1307
                                                                                                                                                                                                                                                                                                   1247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1007
                                                                  72
                                                                                                                                    132
                                                                                                                                                                                                                                                                    252
                                                                                                                                                                                                                                                                                                                                    312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
```

Search completed: October 29, 2004, 16:07:28
Job time : 7925 secs

This Page Blank (uspto)

```
Minimum
Maximum
                                                                                                                                                                                                                        Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OM nucleic - nucleic search, using sw
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Run on:
                                                                                                                                                                     a a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Post-processing: Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Total number of hits satisfying
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Word size :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Perfect score:
                                                                                                                                                                                                              ö
  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB DB
                                                                                                                                                                                                              Score
                                                                                            2618
1830
1830
1120
1120
1101
1100
1093
1088
1088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  seq length: 0
seq length: 2000000000
                                                                                                                                                                                                             Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-867-570-1
2618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        October 29, 2004, 16:11:13 ; Search time 10838 Seconds (without alignments)
11423.181 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OLIGO_NUC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4526729 seqs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gapop 60.0 , Gapext 60.0
                                                                                                                                                                                                                                                                                                           10:
11:
12:
13:
                                                                                                                                                                                          100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20
                                                                                                                                                                                                                                                                                                                                                                                                                                                           GenEmbl: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gb ba:
gb ntg:
gb ntg:
gb om:
gb ow:
gb pa:
gb pa:
gb pa:
gb pa:
gb pa:
gb pa:
gb ro:
gb ata:
gb un:
gb un:

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Copyright
 91923
91923
91923
917293
917293
917293
91869
14697
11369
1400
1400
1400
969
969
969
969
969
969
969
969
969
                                                                                                                                                                                                             Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GenCore version 5.1.6 (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23644849745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   chosen
                                                                                            AX299158
AX549388
AY042215
                                                                                                                                      AX429465
AC108007
AC090099
AC020568
AX429467
BC067292
 AR477200
BD103572
AF474988
                             AX923125
AF474987
AX657514
                                                                                                                                                                                                              IJ
                                                              E43451
                                                                                  E43450
                                                                                                                            AX647081
                                                                         AX498196
                                                                                                                                                                                                                                              SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   105545
                                                                                          AX429465 Sequence
AC108007 Homo sapi
AC090099 Homo sapi
AC020568 Homo sapi
AX429467 Sequence
BC067292 Homo sapi
AX429181 Sequence
AX299158 Sequence
AX299158 Sequence
AX549388 Sequence
AX549388 Sequence
AX945215 Homo sapi
AX923125 Sequence
AX923125 Sequence
AP474987 Homo sapi
AX657514 Sequence
AX477200 Sequence
BD103572 Novel G p
AP474988 Homo sapi
                                                           E43450 Novel prote
AX498196 Sequence
E43451 Novel prote
                                                                                                                                                                                                              Description
```

4 4 5 4	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28		c 26	25	24	c 23	22	21	20
120 120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	179	179	179	195	275	299	313	386	546	546
4.4 0.0	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	6.8	6.8	6.8	7.4	10.5	11.4	12.0	14.7	20.9	20.9
2040	1369	1369	1116	997	969	969	969	969	969	969	969	969	969	964	969	969	969	67908	275	954	156839	822	969	969
თ თ	9	σ	σ	თ	9	9	თ	6	0	σ	δ	σ	σ	σ	9	6	6	N	6	0	9	σ	σ	δ
CQ815414 AX299143	AB065846	AX646705	BD095749	AX921831	AF474990	AB083628	BD144297	BD103574	AX671113	AX375428	AX268489	AX148178	AR477202	AX921833	AF474989	BD103573	AR477201	AC103998	AR269767	AX657472	AC107948	CQ714760	BD103571	AR477199
CQ815414 Sequence		AX646705 Sequence	BD095749 Novel gua	AX921831 Sequence	AF474990 Homo sapi	AB083628 Homo sapi	BD144297 Novel G-	BD103574 Novel G	AX671113 Sequence	AX375428 Sequence	AX268489 Sequence	AX148178 Sequence		AX921833 Sequence	AF474989 Homo sapi	BD103573 Novel G	AR477201 Sequence	АС103998 Ното варі	AR269767 Sequence	AX657472 Sequence				AR477199 Sequence

ALIGNMENTS

## RESULT 1 AX429465 LOCUS DEFINITION ACCESSION VERSION REFERENCE AUTHORS TITLE SOURCE ORGANISM ORIGIN FEATURES KEYWORDS Query Match 100.0%; Score 2618; Best Local Similarity 100.0%; Pred. No. 0; JOURNAL source Zhao,Q., Beasley,B.M. and Wei,M.H. Isolated human g-protein coupled receptors, nucleic acid molecules encoding human gpcr proteins, and uses thereof Patent: WO 0234914-A 1 02-MAY-2002; PE CORP NY (US) 2618 bp Sequence 1 from Patent W00234914. Homo sapiens (human) Homo sapiens Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo. AX429465.1 GI:21540763 Location/Qualifiers 1. .2618 /organism="Homo sapiens" /mol\_type="unassigned DNA" /db\_xref="taxon:9606" DNA 멺 6; Length 2618; linear PAT 21-JUN-2002

맑

₽. 문

S

181 121 121 61 61

CAGTCTGTAGAGCTATTAGCCAGTTAAACCCATTTCCTTCATAAATTTCCCAGTCTCAGG

CACCAGGATTGGAAGCTTCCTGAGGCCTCCCCAGAAGCAGAAGCTGCTATGCTTCTTGTA 180 CCTCCCTCTCTTACTCCTGCTCTCACCATGTGAGACGCCTCGCTCCCCCTTTGCCTTT CCTCCCTCTCTTACTCCTGCTCTCACCATGTGAGACGCCTCGCCTCCCCCTTTGCCTTT 120 AACAATTGCCGCGAATTCGGCACGAGATGAAATCTAGTTGTTTAAAAGCGTGTAGCACCT 60

120

CACCAGGATTGGAAGCTTCCTGAGGCCCTCCCCAGAAGCAGAAGCTGCTATGCTTCTTGTA

180 240

S 밁

Matches

2618;

Conservative

0;

Mismatches

<u>.</u>

Indels

0;

Gaps

0

1 AACAATTGCCGCGAATTCGGCACGAGATGAAATCTAGTTGTTTAAAAGCGTGTAGCACCT 60

CCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCT 1320	CCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTT 1260	1200	TCCTGCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGA 1140	ATTTCATTACAATCGCGTGGCTGGTTTTTTATGTGTGGGTTCTCTGTGGGTCCAGCCTGG 1080	AGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAG 1020	ACCTGTCATCGGTCATGTGTGTCCTGCGGCCCTGTCCCTGCTGCGGAGTATCCTGG 960	GCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCCCAGAT 900	TCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAGGCGCCATCA 840	GCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCAAAA 780	GCAGGAACGCTGTCTACATCTCAACCTGGTCGCGGCCGACTTCCTTTCTTA 720	TTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGC 660	GACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCG 600	GGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCCAATCAACG 540	TGGGATGTCAAACAGGATAAAGAATGGAAAGCAAATCCTCATGGGTCATCAGACTGG 480	TCCACCAGAAACCAGAAATAAAAGAATCCCACTGATGTGGTACATAGAAGCCACTCTCT 420	ATCCCAAGGTGCTTTCCTGCTGTCTTCCAGTCTCCTGCTGGTGTCTCCAGTGTCTCAAT 360	
2341 TAGTITIA IGGUTGITIA CATGAGAAGCAAAACTGAAAACATCTGACCTTTCCATGACAA 2400	61 GIAGGAGAATICITCATACITCAGGITTTGTAAATTGTTCTGATTGTAACTTTCAGG 81 GTAGGAGAATTCCTTCATACTTCCAGGITTTTGTATAAATTGTTCTGATTGTAACTTTCAGG	Alliandistandi Allia   Alliandi Allia	3 65 6	101 GCCCCTTCCCCTTGAGAACTGGTAAGTTCTTATTTAGCTCTTCCTGGACTAATGAACTAG 2	041 CTGTCATTTGTCCACAGCATGGTGACATGTTGGCCTTGGTTCTAGTAAAGACAATCGTG	981 GAGAGAGATTCTCCCTTCATAAAAACAGTCTTAGAAATTGGTTTTATGAATAGCCCTCTC	CANADA STATE CONTRACT CONTRA	BOI TEARISTICCULTITATEM TOURS SENTIALISE TOUR SENTENCES CONTINUES OF THE SENTENCES OF THE S	801	741 ATIGIAA IAMAAGSAGIIGU IGU GUULAKAACU CIAMAACI CIICIIA IACIIGIIGU CIAMAAGA CIICIIA IACIIGIIGU CIAMAAGA CIICIIA IACIIGIIGU CIICIIA IACIIGI CIICIIA IACIIGIIGU CIICIIA IACIIGI CIICIIA IACII CIICII CIICII CIICII CIICII CIICII CIICII	681 ACATITICCCTGTTATCTTGCACTGAATCTTTCCTACTGAACACTTTTTCTGCACTGTTTCC	621 CACCUA INSTANANCA I ANGIO INCANTIACIONE I INSAIA I CICCIA INFAIALIACIONE 621 CACCUA INSTANANCA I ANGIO INCANTIACIONE 621 CACCUA INGLI I I I I I I I I I I I I I I I I I I	1904   11 CANA 1993   12 CC L'AMANGE I I L'ANA L'AGALLE I AL CLANCE I SACRAGE I GENERI I I I I I I I I I I I I I I I I I I	TOTAL CONTROL TO THE PROPERTY OF THE PROPERT			1321 CCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGG 1380

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 2
AC108007/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŒYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Birren, B., Linton, L., Nusbaum, C., Lander, E., Ali, A., Allen, N., Shiren, B., Linton, L., Campopiano, A., Charg, J., Chazaro, B., Brown, A., Camarata, J., Campopiano, A., Charg, J., Chazaro, B., Choepel, Y., Colangel, M., Collins, S., Collymore, A., Cook, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Faro, S., Ferreira, P., FitzHugh, W., Gage, D., Galagan, J., Gardyna, S., Ginde, S., Gord, S., Goyette, M., Graham, L., Gardyna, S., Ginde, S., Gord, S., Goyette, M., Graham, L., Gardyna, S., Ginde, S., Gord, S., Kells, C., LaRocque, K., Lamazares, R., Landers, T., Lehoczky, J., Levine, R., Lul, G., MacLean, C., MacChandl, P., Major, J., Marquis, N., Matthews, C., McCarthy, M., MacManald, P., Major, J., Marquis, N., Matthews, C., McCarthy, M., McEwan, P., McKernan, K., Meldrim, J., Meneus, L., Mihova, T., Mienga, V., Murphy, T., Naylor, J., Nguyen, C., Nicol, R., Norbu, C., Norman, C., Phunkhang, P., Pierre, N., Pollara, V., Raymond, C., Peterson, K., Phunkhang, P., Pierre, N., Pollara, V., Raymond, C., Retta, R., Rieback, M., Santos, R., Schauer, S., Schupback, R., Seaman, S., Severy, P., Spencer, B., Stange-Thomann, N., Stojanovic, N., Subramanian, A., Talamas, J., Tesfaye, S., Theodore, J., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Ye, W.J., Young, G., Subritted, (J., Talara, C.) Whithhead Trefrinte (MT. Center for Genome Control of Con
Birren, B., Nubbaum, C., Lander, E., Ali, A., Allen, N., Anderson, S., Barria, N., Bastien, V., Bloom, T., Boguslavkiy, L., Boukhgalter, B., Camarata, J., Chang, J., Chazaror, B., Choepel, Y., Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Farreira, P., FitzGerald, M., Gage, D., Galagan, J., Gardyna, S., Gord, S., Graham, L., Grand-Pierre, N., Hagos, B., Horton, L., Hulme, W., Iliev, I., Johnson, R., Jones, C., Kamat, A., Karatas, A., Kells, C., Landers, T., Levine, R., Lindblad-Toh, K., Liu, G., MacLean, C., Macdonald, P., Major, J., Matthews, C., McCarthy, M., Meldrin, J., Meneus, L., Mihova, T., Mlenga, V., McCarthy, M., Meldrin, J., Meneus, L., Mihova, T., Mlenga, V., Murphy, T., Naylor, J., Nguyen, C., Nicol, R., Norbu, C., Norman, C.H., P., O'Donnell, P., O'Neil, D., Oliver, J., Peterson, K., Phunkhang, P., Pierre, N., Raymond, C., Retta, R., Rise, C., Rogov, P., Roman, J., Roy, A., Schauer, S., Schupback, R., Seaman, S., Severy, P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens chromosome 11, AC108007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Research, 320 Charles Street, Cambridge, MA 02141, 3 (bases 1 to 91923)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 (bases 1 to 91923)
Birren,B., Nusbaum,C. and Lander,B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (24-JAN-2002) Whitehead Institute/MIT Center for Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AC108007.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AC108007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACATACATGAACCTGGAAATATTGTGCTAAGGAAAATAAGCCAGACGCCAAACAATATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGAGGATCCTGGTGCTGGAAAAAAAAAAAAAAAAAAA 2618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACATACATGAACCTGGAAATATTGTGCTAAGGAAAAAATAAGCCAGACGCCAAACAATATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCTCAATTATGGTATCTGGATAATAACTTACAGTTGGTACAGAATTCTGATACATGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCTCAATTATGGTATCTGGATAATAACTTACAGTTGGTACAGAATTCTGATACATGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (bases 1 to 91923)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens chromosome 11, clone CTD-3038L12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GI:22655822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  91923 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3 bp DNA linear PRI 03-SEP-20 clone CTD-3038L12, complete sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRI 03-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              258C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                   repeat_region
                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                          repeat_region
```

```
Smith.C., Spencer.B., Stange-Thomann,N., Stojanovic,N., Talamas,J., Tesfaye,S., Theodore,J., Topham,K., Travers,M., Vassiliev,H., Viel,R., Vo,A., Wilson,B., Wu,X., Wyman,D., Young,G., Zainoun,J., Zembek,L., Zimmer.A. and Zody,M.

Direct Submission

NAL

Submitted (24 AUG-2002) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA

4 (bases 1 to 91923)

Barna,M., Bastlen,V., Bloom,T., Boguslavkiy,L., Boukhgalter,B., Cook,R., Cook,P., DeArellano,K., Dewar,K., Diaz,J.S., Dodge,S., Camarata,J., Chang,J., Chazaro,B., Choepel,Y., Collymore,A., Cook,S., Perreira,P., PitzGerald,M., Gage,D., Galagan,J., Faro,S., Perreira,P., FitzGerald,M., Gage,D., Galagan,J., Gardyna,S., Gord,S., Graham,L., Grand-Pierre,N., Hagos,B., McGarthy,M., Meddrim,J., Meneus,L., Mihova,T., Mindbad-Toh,K., Liu,G., MacChean,C., Macdhan,L., Grand-Pierre,N., Hagos,B., McGarthy,M., Meddrim,J., Meneus,L., Mihova,T., Mindbad-Toh,K., Murphy,T., Naylor,J., Naylor,J., Neneus,L., Mihova,T., Mindga,V., Murphy,T., Naylor,J., Neneus,L., Mihova,T., Morbu,C., Morman,C.H., O'Connot,T., O'Donnell,P., O'Meil,D., Oliver,J., Peterson,K., Smith,C., Spencer,B., Schauer,S., Schubeck,R., Schubeck,R.
```

Only the first 91.9 kb of this clone are being submitted. The remainder overlaps accession number AC055860 [WICGR project 19785].

```
complement (2274. .2327)
/rpt_family="L2"
4505. .4713
                                                       complement (1858. .1917)
/rpt_family="L2"
                                                                                                                                                              /rpt_family="L2"
complement(251.
                                                                                                                 /rpt
                                                                                 ğ
                                                                                                                                       /rpt family="L2"
                                 ıdı,
                                                                                                                                                                                                /clone="CTD-3038L12"
/clone_lib="CITD2 Human BAC"
                                                                                                                                                                                                                                               6
                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                    organism="Homo sapiens"
                                                                                            family="LIMD2"
                                                                                                                                                                                                                                             xref="taxon:9606"
                                                                                                                           _family="L1MD2"
                                   family="THE18"
                                                                                 family="L1MD3"
```

		complement (3265032747)	repeat_region
	Db	3203032230 /rpt family="MBR5A"	repeat_region
426 CCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACA 14	Qy	3182231850 /rpt family="(GA)n"	repeat_region
	Db .	3154131821 /rpt family="AluSx"	repeat_region
6 AGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAA 1	Q .	complement (3124731341)	repeat_region
3 ACTICTTCGTGGGCTCCTTTAGGCAGGGTCAAAATAGGCAGAACCTGAAAGCTGGTTCTCC	Db X	/rpt family="(CA)n"	repeat_region
6 ACTTCTTCCTGGGCTCCTTTAGGCAGGCGTCAAAATAGGCAGAAACCTGAAAAGCTTGGTTCTCC 1		complement (3107531197)	repeat_region
3 ATGTGCATCTAGTTTTCCATTTTCCCTCTAACAGCAGTGCCAACCCCATCATTT	לא	/ IPC_LGMILY="MSIA" 3041230452 /rot family="(TG)n"	repeat_region
246 ATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTT	9v #	complement (2933729755)	repeat_region
1186   TIGGERITERGISGGECETIGITITE CARGANICE EL CARGATIGGARANGI EL LA 11115E   1245   1	 F &	/rpt_tam11y="MIR" complement(2900229304) /rpt_family="hlu.To"	repeat_region
	? 5	/rpt ramily="MEK410" complement (2819428287)	repeat_region
1126 CCAGGCTGTAGCTGAGCCTCCTCCTCAGAGCTGTAGCCTCTCTCT	; \$	/rpt_family="AluSg" complement(2779728030)	repeat_region
<ul> <li>Composition of the composition of the</li></ul>	? 5	/rpc ramily="MEK410" complement(2749527796)	repeat_region
1060 GTGGTCCACCTGGTCCTGGTCACCTGCTACCTGCTACCTGCTACCTGCACCTGCTACCTGTCACCTGCTACCTGCTACCTGCTACCTAC	; Q	/rpt_family="AluSq" complement(2745027494)	repeat_region
0		/rpc_ramity="MER41C" complement(27140, .27449)	repeat_region
0.08	2) (3)	/rpc ramily= MIK. complement (2686327139)	repeat_region
<ul><li>CONTOURNER TO THE TOTAL OF THE TOT</li></ul>	); t	complement (2663626719)	repeat_region
THE CONTRACTOR AND THE CONTRACTO	D, 4	/ +	repeat_region
TOTOGRAGIATECTICAGAGITGGATGTTCTGTGACTTTCTGTTTAGTGGTGCTGATTCTGTTT 1	Ov.	/	repeat_region
3 GCCGCCCAAATACCTGTCATCATCATGTGTCTCTGTGTTGTGGGCCCTGTCCCTGC	Dr. 4	/ + b	repeat_region
6 GCCGCCGCCCAGATACCTGTCATCGGTCATGGTGTGTGTG	Ov	/ TPC	repeat_region
TICTIGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACT	Db	20185. 24476 /rot family="1.1pa6"	repeat_region
	Ov	1959120184 /rot family="L1PA4"	repeat_region
3 ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTATAGGCCTAAGCA	Db	1775219590 /rpt family="L1PA6"	repeat_region
ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCA	Ov.	complement (1500217751)	repeat_region
ACTTCCTTTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCC	Db.	complement (1461914992)	repeat_region
	OV #	/pt family="ITR33" /rpt family="ITR33"	repeat_region
10   10   10   10   10   10   10   10	27 63	/rpc_ramily="LTK33" complement(1287613294)	repeat_region
	): :	/ 12692 - 12875 12692 - 12875 /	repeat_region
3 GECTEARCHTEACHTECCTTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCC 9	Db st	/IDC_Lamily="MIRS" 1207212409 /rpt_family="MER2"	repeat_region
6 GGCTGACGTGCATCGTTTGTCCCCTTGTCGCGCTGACAGAAAACGCGGTTGTGCTCTCGGCTCC	Q #	/ipt_ramity= 22 complement(1147911644) /rpt_family="MTR3"	repeat_region
TGACACCAATCAACGGACGTGAGGAGAGCTCCTTGCTACAAGCAGACCCTGAGCTTCACGG 9	Db &	/ipt_idmity= Mix 1136911466 /rot_family="L2"	repeat_region
	OV LE	/pt_tamily="birds"  complement(1071610825)  /rot family="MTB"	repeat_region
6 OWED THE WASHINGTON AND THE WASHINGTON TO THE WASHINGTON THE WASHINGTON TO THE WASHINGTON TO THE WASHINGTON THE WASHINGTON TO THE WASHIN	), Q	ramily=" Tement(71	repeat_region
, m		/rpt_family="(TAAA)n" 58385875	repeat_region
cal Similarity 99.7%; Score 1830; UB 9; Length 91923;		/rpt_family="Alusc" 57965837	
69 9%: Score 1830: DB 9: Length 919		55365795	repeat_region

S 밁

밁

2566 CACAGAAAATAAATTAGGAGGATCCTGGTGCTGGAA 2601	
506 463	
4 4	
386 ACCTTTC	
326 ATTGTAACTTTCAGTTAGTTTTATGGCTGTTTACA1 	
266 CAGATTCTTTCAGTTGTAGGAGAATTCTTCATACTTCCAGGTTTT	
206 GAAACCTCAATATTGATTTTAAAGTGGAAATTATCT	
146 GGACTAATGAACTAGTGAGGAGCCTATAAATATGTO	
086 GTAAAGACAATCGTGGCCCCTTCCCCTTGAGAACTGGTAAGTTCTTATTTAGCT	
026 ATGAATAGCCCTCTCCTGTCATTTGTCCACAGCATGGTGACATGTTGGCCTTGG	
966 AAAATAATGACCTTAGAGAGAGAGTTCTCCCTT 	
906 CAATTCTTAATAAGTGAGTTCTGCTACCTCTAAATTCCATTGAATTCTCAGATJ 	
46 23	
786 183	
726 243	
666 303	
606 GACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGATTCTC 16 	
546 423	
4 4 8	,

밁 á 밁

문 5 밁 δ

REFERENCE AUTHORS

Anderson, S.,

밁 Ś

ક

S

吊

S

밁

S

밁 ঠ 밁

문

Ś

밁 δ 밁 á 밁 र् 밁 र् 밁 S 밁 S

## 7403 CACAGAAAATAAATTAGGAGGATCCTGGTGCTGGAA 7368

밁

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Locus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AC090099/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                  AL Submitted (14-FBB-2001) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA (Charles 1 to 172929)

Birren, B., Nusbaum, C., Lander, B., All, A., Allen, N., Anderson, S., Barna, N., Bastien, V., Bloom, T., Boguslavkiy, L., Boukhgalter, B., Chagara, B., Choepel, Y., Collymore, A., Cocke, P., DeArellano, K., Dewar, K., Diaz, J.S., Dodge, S., Ferreira, P., FitzGerald, M., Gage, D., Galagan, J., Gardyna, S., Gord, S., Graham, L., Grand-Pierre, N., Hagos, B., Horton, L., Hhlme, W., Iliev, I., Johnson, R., Jones, C., Kamat, A., Kells, C., Macdonald, P., Major, J., Matthews, C., McCarthy, M., Meldrim, J., Meneus, L., Mihova, T., Minga, V., McCarthy, M., Meldrim, J., Meneus, L., Mihova, T., Menga, V., Murphy, T., Naylor, J., Nguyen, C., Nicol, R., Norbu, C., Norman, C.H., O'Connor, T., O'Donnell, P., O'Neil, D., O'lver, J., Peterson, K., Phunkhang, P., Pierre, N., Raymond, C., Retta, R., Rise, C., Rogov, P., Smith, C., Spencer, B., Stange-Thomann, N., Stojanovic, N., Talamas, J., Teefaye, S., Theodore, J., Topham, K., Travers, M., Vassiliev, H., Zimmer, A. and Zody, M.
Direct, Suhmission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Birren, B., Linton, L., Nusbaum, C., Lander, E., Allen, N., Anderson, S., Barna, N., Bastien, V., Boguslavkiy, L., Boukhgalter, B., Brown, A., Camarata, J., Campopiano, A., Cheppel, Y., Colangelo, M., Collins, S., Collymore, A., Cooke, P., Daxrellano, K., Dewar, K., Diaz, J.S., Collymore, A., Cooke, P., Daxrellano, K., Dewar, K., Diaz, J.S., Dodge, S., Faro, S., Ferreira, P., FitzHugh, W., Gage, D., Galagan, J., Gardyna, S., Ginde, S., Goyette, M., Graham, L., Grand-Pierre, N., Hagos, B., Heaford, A., Horton, L., Hulme, W., Iliev, I., Johnson, R., Jones, C., Karatas, A., LaRocque, K., Lamazares, R., Landers, T., Levine, R., Liu, G., MacLean, C., Macdonald, P., Marquis, N., Matthews, C., McCarthy, M., McEwan, P., McKernan, K., McPheeters, R., Meldrim, J., Meneus, L., Mihova, T., Mlenga, V., McPheeters, R., Meldrim, J., Meneus, L., Mihova, T., Mlenga, V., McPheeters, R., Polarre, N., O'Neil, D., Oliver, J., Peterson, K., O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Peterson, K., Phunkhang, P., Fierre, N., Pollara, V., Raymond, C., Retta, R., Pierre, N., Pollara, V., Raymond, C., Retta, R., Roy, A., Santos, R., Schauer, S., Schupback, R., Seaman, S., Severy, P., Sougnas, C., Spencer, B., Stange-Thomann, N., Stofanovic, N., Strauss, N., Subramanian, A., Talamas, J., Tesfaye, S., Theodore, J., Talebek, L., Zimmer, A. and Zody, M.

Direct Submission

Licentral M., Ferb. 2001, Whitehold Institut, MIT Center for Genome Carbon, M., Stofanovic, J., Vo, A., Wilson, B., Willey, R., Stofanovic, J., Vo, A., Wilson, B., Will, X., Wyman, D., Ye, W.J., Young, G., Zainoun, J., Schwitz, M., Tatalamas, J., Totalamas, J., Tafanoun, J., Schwitz, M., Tatalamas, J., Totalamas, J., Tafanoun, J., Vo, A., Wilson, B., Wilson, D., Whitehold Institut, MIT Center for Genome Carbon, M., Stofanovic, 
Submitted (05-SEP-2002) whitehead Institute/MIT Center for Genomesearch, 320 Charles Street, Cambridge, MA 02141, USA (bases 1 to 172939)

Birren,B., Nusbaum,C., Lander,B., Ali,A., Allen,N., Anderson,S., Barna,N., Bastien,V., Bloom,T., Boguslavkiy,L., Boukhgalter,B., Camarata,J., Chang,J., Chazaro,B., Choepel,Y., Collymore,A., Cook,A., Cooke,P., DeArellano,K., Dewar,K., Diaz,J.S., Dodge,S., Faro,S., Ferreira,P., FitzGerald,M., Gage,D., Galagan,J., Gardyna,S., Gord,S., Graham,L., Grand-Pierre,N., Hagos,B.,
                                                                                                                                                                                                                                                                                                                                                                                                               Zembek,L., Zimmer
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Maumalia; Butheria; Chordata; Crani
Mammalia; Butheria; Primates; Catar
1 (Dases 1 to 172939)
Birren,B., Nusbaum,C. and Lander,B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACU90099 172939 bp DNA linear PRI 01-OCT-20
Homo sapiens chromosome 11, clone RP11-113D6, complete sequence..
ACU90099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens chromosome 11, clone RP11-113D6
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AC090099.14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (bases 1 to 172939)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GI:23396332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRI 01-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Anderson, S.,
                                                                                                                                                                                                                                                                                                                                                                              for Genome
```

COMMENT TITLE JOURNAL

```
source
                                                repeat_region
                                                                                                                          repeat_region
                                                                                                                                                                 repeat_region
                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                        repeat_region
                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Horton, I., Hulme, W., Iliev, I., Johnson, R., Jones, C., Kamat, A., Karatas, A., Kells, C., Landers, T., Levine, R., Lindblad-Toh, K., Liu, G., MacLean, C., Macdonald, P., Major, J., Matthews, C., McCarthy, M., Meldrim, J., Meneus, L., Mihova, T., Mlenga, V., McCarthy, M., Meldrim, J., Meneus, L., Mihova, T., Mlenga, V., McCarthy, M., Meldrim, J., Meneus, L., Micol, R., Norbu, C., Norman, C.H., O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Peterson, K., O'Connor, T., O'Donnell, P., O'Neil, D., Oliver, J., Peterson, K., Phunkhang, P., Pierre, N., Raymond, C., Retta, R., Rise, C., Rogov, P., Phunkhang, P., Pierre, N., Raymond, C., Retta, R., Rise, C., Rogov, P., Roman, J., Roy, A., Schauer, S., Schupback, R., Seaman, S., Severy, P., Smith, C., Spencer, B., Stange-Thomann, N., Stojanovic, N., Talamas, J., Teefaye, S., Theodore, J., Topham, K., Travers, M., Vassiliev, H., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Young, G., Zainoun, J., Niter, L., Zimmer, A. and Zody, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Direct Submission
Submitted (01-OCT 2002) Whitehead Institute/MIT Center for Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Center project name: L12764
Center clone name: L13_D_6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Contact: sequence_submissions@genome.wi.mit.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Web site: http://www-seq.wi.mit.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Center code: WIBR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       complement(879...1057)
/rpt family="L1M4"
complement(1395...1513)
                                                  /rpt_family="MLT2B1"
complement(9265. .10)
                                                                                                                                                                                                                         complement (6554. .6658)
/rpt_family="LTR41"
                                                                                                                                                                                                                                                                                                                                  /rpt_family="5S"
complement(4009. .4170)
/rpt_family="MIR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     complement (154. .680)
                                                                                                                                                                                                                                                                                                                complement (4210.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                     complement (7175.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /clone="RP11-113D6"
/clone_lib="RPCI-11 Human
                                                                                                                                                                                                                                                                                                                                                                                                             'note="<30 qual SNGL region"
                                                                                                                                                                                                                                                                                                                                                                                                                               note="<30 qual SNGL region"
902. .1910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    chromosome="11"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    mol_type="genomic DNA"
db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        organism="Homo sapiens"
                                                                                                                                                                                                                                                                               __family="MER5B"
.__fa47
family="MER34"
                   family="L1PB3"
. . 10668)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     _family="FLAM_A"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             family="Charliel"
lement(678..810)
family="Charliel"
                                                                                                                                lement (8308.
                                                                                                                                                                                                                                                              family="AluSx"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     family="Alus"
                                                                                                              family="AluJb"
                                                                                                                                               family="LTR41"
                                                                                                                                                                                    family="MLT1C"
                                                                                                                                                                                                                                                                                                                                                                                              .2788
                                                                                                                                                                   . 7359)
                                                                                                                              .8611)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Male BAC"
                   밁
                                                    Ś
                                                                                           밁
                                                                                                                                                                      Matches 2130;
                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                unsure
                                                                                                                                                                                                                                                                                                   unsure
                                                                                                                                                                                                                                                                                                                                                                                                                                                    unsure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               unsure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                        unsure
                                                                                                                                                                                                                                                                                                                                                                            unsure
                                                                                                                                                                                                                                                                                                                                                                                                               unsure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              unsure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  repeat_region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               repeat_region
                                                                                             113998
                                      526 TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG 585
                                                                                                                466 GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC 525
                                                                                         GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC
                   TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG
                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                complement (16587. .16598)

/note="30 qual SNGL region"

complement (16607. .16612)

/note="30 qual SNGL region"

complement (16746. .17360)

/rpt_family_"LIME3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="<30 qual SNGL region"
complement(21118..21398)
/rpt_family="Alu8x"</pre>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /rpt
18993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /rpt_r
14819.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="<30 qual SNGL region"
20879. .20883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  complement (20684.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     complement (17827. .17929)
/rpt_family="MIR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              complement(17665..17774)
/rpt_family="L1ME3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /rpt_family="LTR48B"
complement(11344. .11683)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12188. .12660
                                                                                                                                                                                                                                                                  /note="probably T; possibly C"
21160. .21167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19759. .19821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       rpt_family="AluJo"
|5114. .15175
                                                                                                                                                                                                                                              /note="<30 qual SNGL region"
                                                                                                                                                                                                                                                                                                                                        note="probably A; possibly G"
21153. .21158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'note="<30 qual SNGL region"
                                                                                                                                                                                                                                                                                                                    note="<30 qual SNGL region"
                                                                                                                                                                                                                                                                                                                                                                                              note="probably A; possibly G"
                                                                                                                                                                                                                                                                                                                                                                                                                               note="<30 qual SNGL region"
                                                                                                                                                                                    69.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   family="AluSx"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               _family="L2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                family="AluSx"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     family="L1MC4a"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        family="L1MA2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           family="L1MC4a"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         family="AluJo"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    _family="AluJo"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   family="AluJo"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   family=" (GAAA) n"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             family="L1MC4a"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  family="L2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              family="MERSA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                      .21147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .20609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .19298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .16336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .15108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .13522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .3817
                                                                                                                                                                     0;
                                                                                                                                                                   Score 1830; DB 9;
Pred. No. 0;
0; Mismatches 6;
                                                                                                                                                                     6
                                                                                                                                                                                                         Length 172939;
                                                                                                                                                                      Indels
                                                                                                                                                                     <u>.</u>
                                                                                                                                                                      Gaps
```

113879

į	SOURCE	1666 CTTGATATTACCAATACATTTTCCCTGTTATCTTGCACTGAATCTTTCCTACTGAACACT 1725	Ş
ON ACC	VERSION VERSION	112858 GACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGATTCTC 112799	<b>D</b> b
	DEFINITION	1606 GACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTTGGATTCTC 1665	Ś
568 AC	AC020568 LOCUS	TCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTAACCT	문 5
<del>]</del> •	DESTI.	15.46、 ボウザウンではかななななながですのながったい。 アン・ボン・ボン・ボン・ボン・ボン・ボン・ボン・ボン・ボン・ボン・ボン・ボン・ボン	₹
111898 (	Db	1486 GGACTTTGAGAGCAATGCTGCCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCT 1545	B 8
2566 (	δ	CECTGGAGETGTEGGAAAGCAGATTGGAGCAGTGAGGAAAGCETCTGECCETGTCAGACA	5
111958 /	Db	1426 CCCTIGGAGCTIGTCGGGAACAGATTIGGAGCAGTTAGGAACAACCTCTIGCCCTIGTCAGACA	\$ 5
2506 <i>I</i>	ঠ	אמאמממר זר ז הראממאר שר חבר ז האממ ז ממא ז מאאממ ז המאוממם ז הפר ז ז רר ז ראממאאט	5
112018 :	Db	WEARD & CALCACATOR OF CONTROL OF	3 8
2446	\$		? {
112078	σd	ACTICTICGTGGGCTCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCC	\$ <b>8</b>
2386 1	Q,	113218 ATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCCATCATTT 113159	망
112138 /	Db	1246 ATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCCATCATTT 1305	Ş
2326 /	ę	113278 TTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTC 113219	문
112198 (	σb	TTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGAATTTGAAAGTCTTATTTTGTC	. হ
2266 (	Q Q	CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCT	₽
112258	Db	CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCT	\$
2206 (	Q	GINGGETCCAGCCINGGTCCTGGTCAGGATTCTCTGTNGATCCCCGGAAGATGCCGCINGA	OD D
112318 (	ממ	GTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGA 1125	\$
2146 (	S S	GGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTT	8
112378 (	DЪ	GGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCT	ş
2086	ę ę	113518 TGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTAATTCTGTTT 113459	Db
112438 /	Db	TGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGGTGCTGATTCTGTTT	ફ
2026 1	ঠ	GCCGCCGCCCAGATACCTGTCATCAGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGC	Db
112498 /	Db	GCCGCCGCCCAGATACCTGTCATCGGTCATGTGTGTGTCCTGTGGGCCCTGTCCCTGC	ફ
1966 /	8		g
112558 (	מם	TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACT 885	ঠ
1906 (	Q	ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCA	5
112618 /	Db		} 5
1846 /	ঠ	ACTICCICITACCIGGCACATIATAIGTICGCCGTTACGCCTATCATAITCGCC	} 5
112678 7	рь	ACTICCICITCOTTAGCGGCACATTATATGTTCGCCGTTAGGCCTCATCAATATCCGCC /65	\$ 5
1786 7	Ş	TABLE TARLET TO THE TARLET TO	2 5
112738 1	Db	646 IGGGCTGCGCATGCACCACCACCACCACCACCACCACCACCACCACCACCAC	3 5
1726	Ş		? ?
112798 (	D <sub>0</sub>	586 GGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTCGCTCC	\$ 8
	٠		

Qy 2566 CJ       Db 111898 CJ	Oy 2506 AG     Db 111958 AG	2446 112018	2386 112078	Qy 2326 A:     Db 112138 A:	Qy 2266 CJ pb 112198 CJ	Qy 2206 GJ Db 112258 GJ	46 18	86 78	Qy 2026 A1 Db 112438 A1	ω σ	Qy 1906 CJ Db 112558 CJ		Qy 1786 T/  -   Db 112678 T/	Qy 1726 T7     Db 112738 T7	Db 112798 C
CACAGAAAATAAATTAGGAGGATCCTGGTGCTGGAA 2601 	A-A	TCTGATACATGCTGTGACATACATGAACCTGGAAATATTGTGCTAAGGAAAATAAGCCAG	ACCTTTCCATGACAATCTCAATTATGGTATCTGGATAATAACTTACAGTTGGTACAGAAT	ATTGTAACTTTCAGTTAGTTTTATGGCTGTTTACATGAGAAGCAAAACTGAAAACATCTG	CAGATICTITCAGITGIAGGAGAATICTICATACTICCAGGITITGTATAAATIGITCIG 	GAAACCTCAATATTGATTTTAAAGTGGAAATTATCTTGAAAACCATTTATTATTCACTTA 	GGACTAATGAACTAGTGAGGAGCCTATAAATATGTCCCACCAGTTTCATTTTGGCCATTG	GTAAAGACAATCGTGGCCCCTTCCCCTTGAGAACTGGTAAGTTCTTATTTAGCTCTTCCT         	ATGAATAGCCCTCTCCTGTCATTTGTCCACAGCATGGTGACATGTTGGCCTTGGTTTCTA	AAAATAATGACCTTAGAGAGAGAGATTCTCCCTTCATAAAAACAGTCTTAGAAATTGGTTTT	CARTTCTTAATAAGTGAGTTCTGCTACCTCTAAATTCCATTGAATTCTCAGATATAAAGC		TATACTTGTTTCCTACCTGATAGTATCAAAAAGGAAGATTCCTTATTAATCTGTCAGACT	TITTCTGCACTTTTCATTGTAATAAAAGGAGTTGCTGTCCACAACCCTAAAACTCTTCTT	
	2565 111899	2505 111959	2445 112019	2385 112079	2325 112139	2265 112199	2205 112259	2145 112319	2085 112379	2025 112439	1965 112499	1905 112559	1845 112619	1785 112679	112739

AC020568

ACO20568

ACO205

```
JOURNAL REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 (bases 1 to 192618)
Waterston,R.H.
Direct Submission
Submitted (04-JAN-2000) Genome Sequencing Center, Washington University School of Medicine, 4444 Forest Park Parkway, St. MO 63108, USA
On Jul 19, 2000 this sequence version replaced gi:9211362.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
1 (bases 1 to 192618)
Waterston, R.H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequencing vector: M13, 93%
Sequencing vector: M13, 93%
Sequencing vector: plasmid; 7%
Chemistry: Dye-primer ET; 93% of reads
Chemistry: Dye-terminator Big Dye; 7% of reads
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Center: Washington University Genome Sequencing Center Center code: WUGSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Quality coverage: 3.99 in Q20 bases; agarose-fp Quality coverage: 4.34 in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Assembly program: Phrap; version 0.990319
Consensus quality: 179082 bases at least Q40
Consensus quality: 183120 bases at least Q30
Consensus quality: 185448 bases at least Q20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Center project name: H_NH0206C01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Web site:http://genome.wustl.edu/gsc/index.shtml
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Insert size: 205000; agarose-fp
Insert size: 190318; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The sequence of Homo sapiens clone Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                NOTE: This is a 'working draft' sequence. It currently consists of 24 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will
                                                                                                                                                                                                                                                                                                                                                                                                                                                   as soon as it
be preserved.
                               14809
17877
17937
21535
21636
224616
24716
24716
28402
28402
35070
35070
35070
42474
42574
                                                                                                                                                                                                                                                                                                                                                           1380
3545
3645
5442
                                                                                                                                                                                                                                                                                                                                                                                                                      1280
                                                                                                                                                                 2461
                                                                                                                                                                                                                                                                                                      1019
                                                                                                                                                                                                                          .7876:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Genome Center ----
                                                                                                                                                                                                                                                                                                                                                                                                                      contig
contig
gap of
contig
gap of
contig
gap of
contig
gap of
                                                                                                                               contig
gap of
contig
                                                                                                                                                                                                                                                      gap of contig
                                                                                                                                                                                                                                                                                                                                                           contig
gap of
                                                                                                                                                                                                         gap of
                                                                                                                                                                                                                                       gap of
                                                                                                                                                                                                                                                                                                  gap of
                                                                                                                                                                                                                          contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Information
                                           unknown
of 7179
                                                                                                                                                                                                                                                      unknown
of 2670
                                                                                                                                                                                                                                                                                               of 1575
unknown
                                                                                                                                                                                                                                                                                                                                                           of 1797
unknown
                                                                                                                                                                                                                                                                                                                                                                                                                      of 1279
unknown
                                                                                                                                                              of.
                                                                                                                                                                                                                          of.
                                                                                                                                                                                                                                                                                                                                            of 2880
                                                                                                                                                                                                                                                                                                                                                                                                        of 2165
                                                                     of 6404
                                                                                      unknown
                                                                                                    of 7568
                                                                                                                    unknown
                                                                                                                                  of 3586
                                                                                                                                                                               unknown
                                                                                                                                                                                             of 3558
                                                                                                                                                                                                                                          unknov
                                                                                                                                                                                                                                                                                    of 1742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                               2981
                                                                                                                                                                                                                          3068
             length
bp in 1
length
bp in 1
length
length
bp in 1
                                                                                                                                length
bp in ]
                                                                                                                                                                                                                                                                                                                                            bp in
                                                                                                                                                                                                                                                                                                                                                                                                                    bp in length
length
                                                                                                   ni do
                                                                                                                                                                                             ģ
                                                                                                                                                                                                                          ģ
                                                                                                                                                                                                                                                        ğ
                                                                                                                                                                                                                                                                                     ni dq
                                                                                                                                                                                                                                                                                                                 å
                                                                                                                                                                                                                                                                                                                                                                         ur đq
                                                                                                                                                                                                                                                                                                                                                                                                      bp in length
                                                                                                                                                              bp in
                                                                                                                                                                                                                                                        length
bp in :
                                                                                                                                                                                                                                                                                                                               length
                                                                                                                    length
                                                                                                                                                                               length
                                                                                                                                                                                                         length
                                                                                                                                                                                                                                        length
                                                                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                                                                                                                             length
                                                                                                                                                                                                                                                                                                                                                                                          length
                                                                                                                                                                                                ä
                                                                                                                                                                                                                          'n
                                                                                                                                                                                                                                                                                                                in length
                                                                                                                                length
                                                                                                                                                                                           length
                                                                                                                                                                                                                                                                                                                                                                         length
             length
                                         length
                                                                       length
                                                                                                    length
                                                                                                                                                              length
                                                                                                                                                                                                                          length
                                                                                                                                                                                                                                                     length
                                                                                                                                                                                                                                                                                  length
                                                                                                                                                                                                                                                                                                                                             length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Louis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                             misc_feature
                                                          misc_feature
                                                                                      misc_feature
                                                                                                                    misc_feature
                                                                                                                                              misc_feature
                                                                                                                                                                            misc_feature
                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                       misc_feature
                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                  misc_feature
                                                                                                                                                                                                                                                                                                                                 misc_feature
                                                                                                                                                                                                                                                                                                                                                                                         misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                    misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                   misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     109241
109341
124286
124386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            153883
153983
169995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           138709
                                                                                                                                                   /note="assembly_name:Contig37" 92244. .109240
                                                                                                                                                                                                                                          /note="assembly_name:Contig34"
57705. .67088
                                                                                                                                                                                                                                                                                                                                                                    28402. .35969
/note="assembly_name:Contig31
                                                            /note="assembly_name:Contig40"
138709. .153882
                                                                                                                    /note="assembly_name:Contig38"
109341. .124285
                                                                                                                                                                               /note="assembly_name:Contig36"
77757. .92143
                                                                                                                                                                                                            /note="assembly_name:Contig35"
67189. .77656
                                                                                                                                                                                                                                                                       /note="assembly_name:Contig33"
49853. .57604
                                                                                                                                                                                                                                                                                                                                    36070.
                                                                                                                                                                                                                                                                                                                                        vector_side:left"
                                                                                                                                                                                                                                                                                                                                                                 clone end:SP6
                                                                                                                                                                                                                                                                                                                                                                                                                                 /note="assembly_name:Contig28"
21635. .24615
/note="assembly_name:Contig29"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /db_xref="taxon:9606"
/chromosome="20"
/clone="""
   /note="assembly_name:Contig42"
170095. .192618
                               /note="assembly_name:Contig41"
153983. .169994
                                                                                         /note="assembly_name:Contig39"
124386. .138608
                                                                                                                                                                                                                                                                                                      42574. .49752
                                                                                                                                                                                                                                                                                                              /note="assembly_name:Contig32"
                                                                                                                                                                                                                                                                                                                                                                                                                           24716. .28301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="assembly_name:Contig22"
                                                                                                                                                                                                                                                                                                                                                                                                   note="assembly_name:Contig30"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          note="assembly_name:Contig27"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            note="assembly_name:Contig25"
2039. .14708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          note="assembly_name:Contig21"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'clone="RP11-206C1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   organism="Homo sapiens"
"mol_type="genomic DNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ocati
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         note="assembly_name:Contig26"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0197. .11938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    note="assembly_name:Contig24"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                note="assembly_name:Contig23"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       note="assembly_name:Contig19"
                                                                                                                                                                                                                                                                                                                                    .42473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .17876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             contig of 9384 bp in length is gap of unknown length contig of 10468 bp in length gap of unknown length contig of 14387 bp in length gap of unknown length contig of 16997 bp in length contig of 16997 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gap of unknown length contig of 14223 bp in length gap of unknown length contig of 15174 bp in length gap of unknown length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gap of unknown len
contig of 22524 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gap of unknown length
contig of 14945 bp in
gap of unknown length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          of 16012 bp in
unknown length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          length
```

```
S
                                                                                                                                                                                                                                                                       ક
                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ş
                                        밁
                                                                                          음 성
                                                                                                                                      밁
                                                                                                                                                              ঠ
                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                             멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                             ફ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 1370; Conserv
                                                                                                                                                                                                                                                                                                       157748
                                                                                                                                                                                                                                                                                                                                                                                                            157628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           157328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 157208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTTCCATTTTTCCTGTCCGCTCTTAACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGC
AGTITCATTITGGCCATTGGAAACCTCAATATTGATTTTAAAGTGGAAATTATCTTGAAA
                                        TTCTTATTTAGCTCTTCCTGGACTAATGAACTAGTGAGGAGCCTATAAATATGTCCCACC
                                                                                            ATGTTGGCCTTGGTTTCTAGTAAAGATCACCGTGGCCCCTTCCCCCTTGAGAACTGGTAAG
                                                                                                                                             ATTACTGCAGTTGGAAGCTCAATTCTTAATAAGTGAGTTCTGCTACCTCTAAATTCCATT
                                                                                                                                                                                                                                                                                                       CTTATTAATCTGTCAGACTATGTTCCCCTGAAAATCATGTTCCCTTCTATGACTGGAGGC
                                                                                                                                                                                                                                                                                                                    CTTATTAATCTGTCAGACTATGTTCCCCTGAAAATCATGTTCCCTTTTATGACTGGAGGC
                                                                                                                                                                                                                                                                                                                                                          CAACCCTAAAACTCTTCTTTATACTTGTTTCCTACCTGATAGTATCAAAAAGGAAGATTC
                                                                                                                                                                                                                                                                                                                                                                       CAACCCTAAAAACTCTTCTTTATACTTGTTTCCTACCTGATAGTATCAAAAAGGAAGATTC
                                                                                                                                                                                                                                                                                                                                                                                                                           ATCTTTCCTACTGAACACTTTTTCTGCACTTTTCATTGTAATAAAAGGAGTTGCTGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTACAATGTTTGGATTCTCCTTGATATTACCAATACATTTTCCCTGTTATCTTGCACTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTACAATGTTTGGATTCTCCTTGATATTACCAATACATTTTCCCTGTTATCTTGCACTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TATGCATTTTTCTTAGCCTTCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TATGCATTTTCTTAGCCTTCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCTCTGCCCTGTCAGACAGGACTTTGAGAGAGCAATGCTGCCCTGCCACCCTTGACAATTA 1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGTGCCAACCCCATCATTTACTTCCTTGGGGGCTCCTTTAGGCAGCGTCAAAATAGGCAG
                                                         TTCTTATTTAGCTCTTCCTGGACTAA1GAACTAG1GAGGAGCCTATAAATATGTCCCACC
                                                                                                                   ATGTTGGCCTTGGTTTCTAGTAAAGACAATCGTGGCCCCCTTCCCCCTTGAGAACTGGTAAG
                                                                                                                                                                                                                                                                                                                                                                                                             ATCTTTCCTACTGAACACTTTTTCTGCACTTTTCATTGTAATAAAAGGAGTTGCTGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGTGGCTTCCTCAGGAAACCCTTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   42.8%;
ilarity 99.6%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="assembly_name:Contig43"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 1120; DI
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 192618;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                1886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1346
                2246
                                                                   2186
                                                                                                                      2126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                157267
                                                                                                                                                                                                                                                                               1946
                                                                                                                                                                                                                                                                                                       15780
                                                                                                                                                                                                                                                                                                                                                          157747
                                                                                                                                                                                                                                                                                                                                                                                                            157687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                157627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   157567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     157507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         157447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               157327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     157207
                                          158107
                                                                                            158047
                                                                                                                                               157987
                                                                                                                                                                                                                                                     15786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 5
AX429467
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
TITLE
                                                             S
                                                                                            밁
                                                                                                             S
                                                                                                                                          밁
                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       片
              S
                                        밁
                                                                                                                                                                                              멍
                                                                                                                                                                                                                  र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                     Matches 1101;
                                                                                                                                                                                                                                                                 Best Local Similarity
                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         158408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           158348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               158288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               158228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    158168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       158108 AGTTTCATTTTGGCCATTGGAAACCTCAATATTGATTTTAAAGTGGAAATTATCTTGAAA 158167
                                          7682
                                                                                            7622
                                                                                                                                               7562
                                                                  646
                                                                                                                      586
                 706
                                                                                                                                                                                                                           466
                                                                                                                                                                                                                                                                                                                                                                               Zhao,Q., Beasley,E.M. and Wei,M.H.
Isolated human g-protein coupled receptors, nucleic encoding human gpcr proteins, and uses thereof Patent: WO 0.234914-A 3 02-MAY-2002;
PE CORP NY (US)
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Butheria; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AX429467 8622 bp
Sequence 3 from Patent W00234914.
AX429467 GI:21540764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (human)
                                                                                                                                                                                                GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAATTAGGAAATTCTTGAACACAGAAAATAAATTAGGAGGATCCTGGTGCTGGAA 2601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTAAGGAAAATAAGCCAGACGCCAAACAATATTGTAAGTTCAAATTCTATGAGGTATCC 2546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCATTATTATTCACTTACAGATTCTTTCAGTTGTAGGAGAATTCTTCATACTTCCAGG
 ACTICCICTICCTIAGCGGCCACATIAIATGITCGCCGTTACGCCTCATCAATATCCGCC
                                                                                                                                             TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCAAAACTGAAAACATCTGACCTTTCCATGACAATCTCAATTATGGTATCTGGATAATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTTTGTATAAATTGTTCTGATTGTAACTTTCAGTTAGTTTATGGCTGTTTACATGAGAA
                                                       TGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCG
                                                                                             GGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCC
                                                                                                            GGCTGACGTGCATCGTTTCCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTTGGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCAAAACTGAAAACATCTGACCTTTCCATGACAATCTCAATTATGGTATCTGGATAATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                 /organism="Homo sapiens"
/mol_type="unassigned DNJ
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
1. .8622
                                                                                                                                                                                                                                                                42.1%; Score 1101;
100.0%; Pred. No. 0;
                                                                                                                                                                                                                                                     0,
                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                 DNA"
                                                                                                                                                                                                                                                                               DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DNA
                                                                                                                                                                                                                                                                              6
                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                            Length 8622;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
```

Euteleostomi;
; Homo.

PAT

21-JUN-2002

158522

158407

158347

158287 2366 158227

acid molecules

705 7681 645

7621 585 7561

0

```
REFERENCE
AUTHORS
                                                                                                                                                                                             RESULT 6
BC067292
                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                             ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        日
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                               SOURCE
                                                                                              KEYWORDS
                                                                                                                                                                DEFINITION
                                                                ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8042
                                                                                                                                                                                                                                                                                                                                                                                                                            1426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     946
             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 1697)
                                                                                                                            1697 bp mRNA linear
Homo sapiens G protein-coupled receptor MRGX3, mRNA
MGC:75450 IMAGE:30383708), complete cds.
BC067292
                                                                                                               BC067292
BC067292.1
                                                                 Homo sapiens
                                                                             Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                              GGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTTCTTAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                 CCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACA 1485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAA 1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TIGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTC 1245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGA 1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGGTTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCGCCGCCCAGATACCTGTCATCGGTCATGTGTGTCTCCTGGTCTCTGGGCCCTGTCCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCA 825
                                                                                                                                                                                                                                                                               TCTGCCTCAGAAATGTCTCAG 1566
                                                                                                                                                                                                                                                                                                                               GGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCT
                                                                                                                                                                                                                                                                                                                                                                                               CCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGCACCTCTGCCCTGTCAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC 1365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCGCCGCCCAGATACCTGTCATCGGTCATGTGTGTCTTGCTCTGGGCCCTGTCCCTGC 945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCCTACTTTATAGGCCTAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACTTCCTCTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTC
                                                                                                                 GI:45501076
Feingold, E.A.,
                                                                                                                                                                                                                                                               8602
Grouse, L.H.,
                                                                                                                                                                (cDNA clone
                                                                                                                                                                               PRI 30-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  885
                                                                                                                                                                                                                                                                                                                               8581
                                                                                                                                                                                                                                                                                                                                                             1545
                                                                                                                                                                                                                                                                                                                                                                                                                                                            8461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7921
                                                                                                                                                                                                                                                                                                                                                                                               8521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
PUBMED
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REMARK
COMMENT
                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE
                                                                                                                 CDS
                                                                                                                                                                               gene
                                                                                                                                                                                                                                                                                                                               source
```

```
Klausner, R.D., Collins, P.S., Wagner, L., Shenmen, C.M., Schuler, G.D., Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K., Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsteh, F., Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L., Stapleton, M., Borase, M.B., Bonaldo, M.F., Casavant, T.L., Scheetz, T.B., Brownstein, M.J., Ugdin, T.B., Toshyuki, S., Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J., Abramson, R.D., Mallahy, S.J., Bosak, S.A., McGran, P.J., McGran, P.J., Helton, S., Kettenan, M., Madan, A., Rodrigues, S., A., Rahey, J., Helton, S., Kettenan, M., Madan, A., Gorger, E.J., Lu, X., Gibbs, R.A., Rahey, J., Helton, S., Kettenan, M., Madan, A., Green, E.D., Dickson, M.C., Rodriguez, A.C., Sheval, J., Sanchez, A., Mitting, M., Madan, A., Young, A.C., Shevchenko, Y., Bouffard, G.G., Blakesley, R., Tochman, J.W., Green, E.D., Dickson, M.C., Rodriguez, A.C., Shevchenko, Y., Bouffard, G.G., Hakeeley, R.W., Tochman, J.W., Green, E.D., Dickson, M.C., Schein, E.S., Krzywinski, M.I., Skalska, U., Smailue, D.E., Schmerch, A., Schein, E.S., Krzywinski, M.I., Skalska, U., Smailue, D.E., Bouffard, G.G., Blakeeley, R.W., Touchman, J.W., Green, E.D., D.E., Schmerch, A., Schein, E.S., Krzywinski, M.I., Skalska, U., Smailue, D.E., Bouffard, G.G., Blakeeley, R.W., Touchman, J.W., Green, E.D., D.E., Schmerch, A., Schein, E.S., Krzywinski, M.I., Skalska, U., Smailue, D.E., Bouffard, G.G., Blakeeley, R.W., Touchman, J.W., Green, E.D., D.E., Schmerch, A., Schein, S.S., J. and Marra, M.A. (B.C.), Buffard, C.G., Bouter, M.D., Bouter,
```

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAK plate: 141 Row: m Column: 20
This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 16876452.

Location/Qualifiers
1..1697
/mol\_type="mRNA"
/db xref="taxon:9606"
/clone="MGC:75450 IMAGE:30383708"
/tissue\_type="Testis"
/clone="MGC:75450 IMAGE:30383708"
/tissue\_type="Testis"
/clone="Testis"
/lab host="DH10B"
/note="Vector: pCMV-SPORT6.1"
/db xref="MGX3"
/db xref="MIM:607229"
S
/gene="MRGX3"
/codon\_start=1
/product="G; ratein-coupled receptor MRGX3"
/protein\_id="MAH67292.1"
/db xref="G; 45501077"
/db xref="GG1:45501077"
/db xref="MIM:607229"

```
Query Match
Best Local Similarity
Matches 1300; Conserv
1176
                                                                                                                                                  1056
                                                                                                                                                                                                                                                            1126
                                                                                                                                                                                                                                                                                                                                                                                                            1006
                                                                                                                                                                                                                                                                                                                                   1066
                                                                                                                                                                                                                         996
                                                                                                                                                                                                                                                                                                  936
                                                                                                                                                                                                                                                                                                                                                                          876
                                                                                                                                                                                                                                                                                                                                                                                                                                                   916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   336 GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       466 GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC
                         ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGGCTGGTTCTCCC
                                                                                              ATGTGCATCTAGTTTTCCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTT
                                                                                                                                                    TTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTC
                                                                                                                                                                       TTGGCATTCAGTGGGCCCTGTTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTC
                                                                                                                                                                                                                                                    CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCT
                                                                                                                                                                                                                                                                                                  GTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGA
                                                                                                                                                                                                                                                                                                                                     GTGGGTCCAGCCTGGTCCTGCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                            TGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCGCCGCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCCTACTTTATAGGCCTAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACTTCCTCTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCCTGAGCTTCACGG
 ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC
                                                                           ATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCCATCATTT
                                                                                                                                                                                                                         CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCCATCTGGTACCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACTTCCTCTTCCTTAGCGGCCACATTATACGTTCGCCGTTACGCCTCATCAATATCCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SFRQRQNRQNLKLVLQRALQDTPEVDEGGGQLPQETLELSGSRLEQ"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             42.0%;
99.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 1100;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 1697;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                    1365
                                                                                                           1305
                                                                                                                                                                                                                                                                                                                                                                                                              1065
                                                                           1175
                                                                                                                                                  1115
                                                                                                                                                                                     1245
                                                                                                                                                                                                                           1055
                                                                                                                                                                                                                                                              1185
                                                                                                                                                                                                                                                                                                                                       1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         525
                                                                                                                                                                                                                                                                                                  995
                                                                                                                                                                                                                                                                                                                                                                                                                                                   875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     395
                                                                                                                                                                                                                                                                                                                                                                            935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
```

8 8 8 8 8 8

8 8 8

δ

중 음 중 음

밁

1366

AGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAA 1425

S

밁

ક

밁

음 성

ঠ

밁

8 8 8 8

밁

```
RESULT 7
AX647081
LOCUS
DEFINITION
ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VERSION
KEYWORDS
á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                           문
                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B
                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                        AUTHORS
TITLE
                                                                                    Matches 1193;
                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                               Sg
                                                                                                                                                                                                                                                                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1416
                                                        466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AX647081
Sequence
AX647081
                                                                                                                                                                                                                                                                                                                                                                                                            Suwa,M., Asai,K., Akiyama,Y. and Aburatani,H. Guanosine triphosphate-binding protein coupled receptors Patent: EP 1270724A, 1273 02-VAN-2003;
National Institute of Advanced Industrial Science and Technology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AX647081.1 GI:28800068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC 525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTTTCTGCACTTTTCATTGTAATAAAAGGAGTTGCTGTCCACAA 1769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTGATATTACCAATACATTTTCCCTGTTATCTTGCACTGAATCTTTCCTACTGAACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGACTTTGAGAGCCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTTCTTAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACA
  TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTTTCTGCACTTTTCATTGTAATAAAAGGAGTTGCTGTCCACAA 1639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTTGATATTACCAACACATTTTCCCTGTTATCTTGCACTGAATCTTTCCTACTGAACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGATTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGATTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTAACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACA
                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                 ; Center for Advanced Science and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1273
                                                                                                                                                                    SFRQRQNRQNLKLVLQRALQDTPEVDEGGGWLPQETLELSGSRLEQ'
                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                        /proteIn_id="CAD69666.1"
/db_xref="GI:28800069"
                                                                                                                                                                                                                                                                                                 201. .1169
                                                                                                                                                                                                                                                                                                           /mol_type="unassigned
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                           /organism="Homo sapiens"
/mol_type="unassigned DNA"
                                                                                                                                                                                                                                                                                 note="unnamed protein product"
                                                                                                                                                                                                                                                                    codon_start=1
                                                                                               41.7%;
99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 from Patent
                                                                                    0,
                                                                                                 Score 1093;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1369
                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 369 bp I
EP1270724.
                                                                                                               DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA
                                                                                                               6;
                                                                                                                                                                                                                                                                                                                                                                                                 Technology Incubation,
                                                                                    2
                                                                                                               Length
                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PAT
                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               04-MAR-2003
                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                 Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1485
    585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1355
                               234
                                                                                     0
```

밁

\$ 멍 5 밁 S 뭐 5 문 8 밁 S 밁 5 밁 S 문 5 밁 Ś 밁 Ś 밁 5 밁 Ś В Ş 밁 Ş 문 Ś 문

유정

```
IORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        y Match 41.6%; Score 1088; I
: Local Similarity 100.0%; Pred. No. 0;
thes 1088; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MSIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1315 GACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGA 1369
                                                                                                                                                                                                                                                                                                                             493
                                                                                                                                                                                                                                                                                                                                                                                                           433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   473 CAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACC
                                      893
                                                                              673
                                                                                                                     833
                                                                                                                                                             613
                                                                                                                                                                                                     773
                                                                                                                                                                                                                                              553
                                                                                                                                                                                                                                                                                    713
                                                                                                                                                                                                                                                                                                                                                                   653
                                                                                                                                                                                                                                                                                                                                                                                                                                                    593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 30
AX299158
AX299158.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens (human)
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pain signaling molecules
Patent: WO 0183555-A 30 08-NOV-2001;
CALIFORNIA INSTITUTE OF TECHNOLOGY (
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AX299158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Anderson, D.J., Dong, X.,
                 CCCCAGATACCTGTCATCGGTCATGTGTGTGTCCTGCTGGGGCCCTGTCCCTGCTGCGGAG 952
                                                                                                    CGCCATCAGCACCGAGCGCTGCCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCG 892
                                                                                                                                                                                  CTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAG
                                                                                                                                                                                                                                                                                                                                                      CCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                           GIGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                         GTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACC
ccccagaraccrercaregercarerererecrecresescererecerecesas
                                                                                                                                                               CTCCAMANTCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAG
                                                                                                                                                                                                                                              CTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCAT
                                                                                                                                                                                                                                                                   CTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCAT
                                                                                                                                                                                                                                                                                                                             CCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGAC
                                                                              CGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="unnamed protein product"
/codon_start=1
/protein_id="CAD12713.1"
/protein_id="CAD12713.1"
/bb_xref="GI:17129066"
/translation="MDSTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTG
NAVVLMILGCENBRUNAYSIYILINLVAADFLFILSGHIICSFLKLINIRHPISKILSFVM
TFPYFIGLSMLSAISTERCLSILMFIMYHCRRPRYLSSVMCVLLMALSLLRSILEMMF
CDFLFSGADSVMCETSDFITLMGLVFLCVVLCGSSLVLLVRILGGSRXMPLTRLYVTI
LLTVLVFLLGGLFGGJOMALFSRIHLDMKVLFCVHHLVSIFLSALNSSANPIIYFFVG
SFRQRQNRQNLKLVLQRALQDTPEVDEGGGMLPQETLELSGSRLEQ"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Homo sapiens"
/mol_type="unassigned DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1. .1400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GI:17129065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Patent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1400 bp
WO0183555.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Zylka, M., Han, S.K. and Simon, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (US)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1400;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PAT 26-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                        832
                                                                                                                                                                                                                                              612
                                                                                                                                                                                                                                                                                      772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      532
                                                                                                                                                                 672
                                                                                                                                                                                                                                                                                                                               552
                                                                                                                                                                                                                                                                                                                                                                                                           492
                                                                                                                                                                                                                                                                                                                                                                                                                                                    652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             372
  792
                                                                                732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
```

Query Match 41.6%; Score 1088; DB 6; Length 1400; Best Local Similarity 100.0%; Pred. No. 0; Matches 1088; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	/organism="Homo sapiens" /mol type="unassigned DNA" /mol type="taxon:9606" /db_xref="taxon:9606"	Patent: W Lifespan		NISM Homo sapiens Eukaryota; Me Mammalia; Eut	GI:25814004		1393 CAGAAATG			7 1015-North-Accellands (General Manage) (General 11011-1111-11111-11111-11111-11111-11111-1111	1153	1233 ICTAGTITICCATTITICCIGTICGCTICTTAACAGGAGTAGCAGACCCCATCATTIACTICTI	1033 TCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGA	113 GIACCICCOCCACAGO COMO A TODO A ACOMO TODO A TODO A ACOMO TODO A TODO	1133 CHARCETTANCATTON CARGINGTING TO CONTROL	B53 AACGTCATGATTACAATTCGCGTGGTTTTTTTATGTGTGGTTCTTGTGGGTC	Qy 953 TATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGGTGATTCTGTTTGGTGTGA 1012
	o b Qy	Qy Oy	Qy Db	Db Qy	Db Qy	Qy dd	Qy Db	QY Od	Qy Db	Db Qy	dg VQ	Qy Db	da VQ	DB QV	dg VQ	Qy da	D Q
Table to the control of the control	1433 1273	Y 1373 TCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGA 1432 	Y 1313 CGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGC 1372	Y 1253 TCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTT 1312	Y 1193 TCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCA 1252	Y 1133 GTACGTGACCATCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCTTTGGCAT 1192	Y 1073 CAGCCTGGTCCTGCTGAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCT 1132	Y 1013 AACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTTCTGTGGGTC 1072	y 953 TATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGA 1012	P 893 CCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGCTGCGGAG 952	9 833 CGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCG 892	773 CTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAG 832	713 CTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCAT 772	Y 653 CCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCT 712	Y 593 GTGCATCGTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTG 652	Y 533 AATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGAC 592	Y 473 CAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACC 532 

```
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
MEDLINE
PUBMED
REFERENCE
AUTHORS
TITLE
                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 10
AY042215
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                             S
                                                             밁
                                                                                                                       밁
                                                                                                                                            Ş
                                                                                                                                                                          뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PEATURES
                                                                                                                                                                                                                                               Best Local Similarity Matches 1088; Conserv
                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1393
      493
                                                             433
                                                                                           593
                                                                                                                         373
                                                                                                                                                                                     313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 1400)

1 (bases 1 to 1400)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (19-JUN-2001) Division of Biology, 216-76, California Institute of Technology, 1201 E. California Blvd., Pasadena, CA 91125, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 (bases 1 to 1400)
Dong, X., Han, S.-K., Zylka, M.J., Simon, M.I. and Anderson, D.J.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Dong,X., Han,S., Zylka,M.J., Simon,M.I. and Anderson,D.J. A diverse family of gpcrs expressed in specific subsets of nociceptive sensory neurons Cell 106 (5), 619-632 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens G protein-coupled receptor (MRGX3) gene, complete AY042215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cell 106 (5),
21435808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AY042215.1 GI:15546065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AY042215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11551509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGAAATG
||||||||
CAGAAATG
                                                                              GTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTTGGCTCCTGGGCTG
                                                                                                                                          AATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGAC
                                                                                                                                                                                                    CAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACC
                                 CCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCT
                                                               GTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTG
                                                                                                                         AATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGAC
                                                                                                                                                                                     CAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACC
    CCGCATGCGCAGGAACGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sapiens (human)
                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                      /translation="MDSTIPVLGTELTPINGREETPCYKQTLSPTGLTCIVSLVALTG NAVVLMLLGCRMRRNAVSIYLIVALDFLFLSGHIICSPLRLLNIHHPISKLISPVM TPPYPIGLSMLSAISTERCLSILMPIWYHCRPFRYLSSVMCVLLMALSLYRSILEMMF CDFLFSGADSVWCETSDFITIAMLVPTLCYVLCGSSLVILLVRILGGSRKMLTRIYVTI LLTVLVFLLCGLPFGIQMALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPIIYFFVG SFRQRQNRQNLKLVLQRALQDTPEVDBGGGWLPQETLELSGSRLEQ"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
<332. .>1300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /product="G protein-coupled receptor"
332. .1300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      <332. .>1300
/gene="MRGX3"
                                                                                                                                                                                                                                                                                                                                                                                                                /product="G protein-coupled receptor"
/protein_id="AAK91806.1"
/db_xref="GI:15546066"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <332. .>1300
/gene="MRGX3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            note="Mas-related gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'gene="MRGX3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                             codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1400
                                                                                                                                                                                                                                            41.6%; Scc
100.0%; P)
ative 0;
                                                                                                                                                                                                                                               Score 1088; Di
; Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1400 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DNA
                                                                                                                                                                                                                                                                             DB
                                                                                                                                                                                                                                                                             9;
                                                                                                                                                                                                                                               0,
                                                                                                                                                                                                                                                                           Length 1400;
                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRI 14-SEP-2001
e, complete cds.
                                                                                                                                                                                                                                               0;
                               712
                                                                                           652
                                                                                                                                                       592
                                                                                                                                                                                                                   532
                                                                                                                         432
                                                                                                                                                                                   372
                                                               492
    552
                                                                                                                                                                                                                                               0
                                 VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                           LOCUS
DEFINITION
ACCESSION
                                                                                                                                       RESULT
E43450
                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                        11
                                                                                                                                                                                                      1393
                                                                                                                                                                                                                                  1553
                                                                                                                                                                                                                                                                1333
                                                                                                                                                                                                                                                                                              1493
                                                                                                                                                                                                                                                                                                                           1273
                                                                                                                                                                                                                                                                                                                                                       1433
                                                                                                                                                                                                                                                                                                                                                                                     1213
                                                                                                                                                                                                                                                                                                                                                                                                                 1373
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           553
E43450.1 GI:18627716
JP 2000166576-A/1.
Homo sapiens
Homo sapiens
Homo sapiens
Eukaryota; Metazoa; Cho
Mammalia; Eutheria; Pri
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        713
                                                                                            E43450
                                                                                                           Novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGGTTCTCTCTGTGGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGCCATCAGCACCGAGCGCTGCCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCG
                                                                                                                                                                                                    CAGAAATG
                                                                                                                                                                                                                                                                                  GAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCTTCTGCCT
                                                                                                                                                                                                                                                                                                                                              GCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACAGGACTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCA 1252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCTTTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGCCTGGTCCTGCTGAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGGCCCTGTCCCTGCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCAT
                                                                                                                                                                                                                                  CAGAAATG
                                                                                                                                                                                                                                                                GAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCTTCTGCCT
                                                                                                                                                                                                                                                                                                                           GCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCCTGTCAGACAGGACTTT
                                                                                                                                                                                                                                                                                                                                                                                       TCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                             TCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                               CGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTACGTGACCATCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTTGCCCCTTTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGCTGCGGAG
                                                                                                           protein G-coupled
                                                                                                                                                                                                    1400
                                                                                                                                                                                                                                  1560
    Chordata;
Primates;
                                                                                                           receptor
                                                                                                                          969
    Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                            protein
                                                                                                                          DNA
                                                                                                           linear
and DNA t
                                                                                                            DNA thereof.
                                                                                                                          PAT 31-JAN-2002
                                                                                                                                                                                                                                                                                                                                                         1492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1372
                                                                                                                                                                                                                                                                1392
                                                                                                                                                                                                                                                                                                                            1332
                                                                                                                                                                                                                                                                                                                                                                                                                   1432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1012
                                                                                                                                                                                                                                                                                              1552
                                                                                                                                                                                                                                                                                                                                                                                        1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                  1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             612
```

```
REFERENCE
AUTHORS
TITLE
                                                                                                                             밁
                                                                                                                                                         δ
                                                                                                                                                                                밁
                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                   뮹
                                              ફ
                                                                               문
                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             E 1 (bases 1 to 969)

Watanabe, T., Terao, S. and Matsui, H.

Novel protein G-coupled receptor protein and DNA thereof

Patent: JP 2000166576-A 1 20-JUN-2000;

TAKEDA CHEM IND LTD

OS Homo sapiens (human)

PN JP 2000166576-A/1

PD 20-JUN-2000

PP 30-SEP-1999 JP 1999278116

PR

PR

TAKUYA WATANABE, SHIZUKO TERAO, HIDEKI MATSUI

PC C12N15/09, A61K38/00, A61K39/395, A61K39/395, A61K45/00, A61

PC C12N15/09, A61K38/00, A61K39/395, A61K39/395, A61K45/00, A61

PC C12N15/09, A61K38/00, A61K39/395, A61K39/395, A61K45/00, A61

PC C12N15/09, A61K38/00, A61K39/395, A61K39/395, A61K45/00, A61
  1032
                            481
                                                                                                          912
                                                                                                                                      361
                                                                                                                                                                852
                                                                                                                                                                                           301
                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                               672
                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                          552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   492 ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG
                                                                                                                                                                                                                     792
                                                                                                                                                                                                                                                                         732
                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            969;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PC (C12N3/53, G01N33/566, G01N33/577// (C12N1/21, C12R1:19), (C12N5/10, PC (C12R1:91), (C12R1:19), (C12P21/08, C12R1:91), C12N15/00, A61K37/02, PC (C12N5/00, C12R1:91)
PC (C12N5/00, C12R1:91)
CC (C12N5/00, C12R1:91)
CC FH Key Location/Qualifiers
FT source 1.969
FT source /organism='Homo sapiens (human)'.
                                                                                                                                                     TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCCCAGATACCTGTCATCG
                                                                                                                                                                                                                                                                                                                  GTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCTCTTCCTTAGCGGCCACATT
                                                                                                                                                                                                                                                                                                                                                                        GCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                                                                                                                                                                                                                                                                              ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCCTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    G01N33/15,
  ATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCTGTGGGTCCAGCCTGGTCCTGCTGGTC 109:
                                                                                                  GTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGCTGCGAGTATCCTGGAGTGGATGTTC
                                                                                                                                     TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCCCCAGATACCTGTCATCG
                                                                                                                                                                                           GTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCCATCAGCACCGAGCGC
                                                                                                                                                                                                                     GTGATGACCTTTCCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCCATCAGCACCGAGCGC
                                                                                                                                                                                                                                                                           ATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCCAACTCCCCAAAATCCTCAGTCCT
                                                                                                                                                                                                                                                                                                      GCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                                                                                                                                                                                                                                                                ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG
                                            TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTTGGTGTGAAACGTCAGATTTCATTACA
                                                                                  GTCATGTGTGTCCTGGGGCCCTGTCCCTGCGGAGTATCCTGGAGTGGATGTTC
                            TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TAKUYA WATANABE, SHIZUKO TERAO, HIDEKI MATSUI
C12N15/09, A61K38/00, A61K39/395, A61K39/395, A61K45/00, A61K48/00,
A61P43/00,
C07K14/705, C07K16/28, C12N1/21, C12N5/10, C12P21/02, C12P21/08, PC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
1. .969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      37.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 969; I
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                          540
                                                       1031
                                                                                  480
                                                                                                           971
                                                                                                                                      420
                                                                                                                                                                 911
                                                                                                                                                                                           360
                                                                                                                                                                                                                     851
                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                           791
                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                               731
                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                       671
                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                           611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 551
                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 12
AX498196
LOCUS
Ś
                      밁
                                                 S
                                                                               밁
                                                                                                    S
                                                                                                                                  닭
                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                  ORIGIN
                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 969; Conser
                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
  672
                                                                                                           552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                            121
                                                                                                                                                                 492
                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AX498196
Sequence 19
AX498196
                                                                                                                                      --
                                                                                                                                                                                                                                                                                                                                                                                                                                           synthetic construct synthetic construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AX498196.1
                                                                                                                                                                                                                                                                                                                                                                        receptors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGCAGTGA 1460
  GTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCTCTTCCTTAGCGGCCACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGCAGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               969
```

```
Chen, R., Chu, Z.L., Dang, H.T., Endogenous and non-endogenous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Patent: WO 0242461-A 19 30-MAY-2002; Arena Pharmaceuticals, Inc. (US)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              artificial sequences.
                                                                                                                                                                                             ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG
                                                                                    ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCCTTGTC
                                                                                                             ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATCGCGTGGCTGTTTTTTTATGTGTGGTTCTCTGTGGGTCCAGCCTGGTCCTGCTGGTC
                      GCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                     ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCCTGGAGCTGTCGGGAAGCAGATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTTCTGCAGGACACGCCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGATCCACCTGGAATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTTCCATTTTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCTTTGGCATTCAGTGGGCCCTGTTTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC
GCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACAGTGCTGCTCTCTCTGTGGCCTGCCCTTTGGCATTCAGTGGGCCCTGTTTTCC
                                                                                                                                                                                                                                                       37.0%; Score 969; DB llarity 100.0%; Pred. No. 0; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pharmaceuticals,
                                                                                                                                                                                                                                                                                                                                                                                    /organism="synthetic construct"
/mol_type="unassigned DNA"
/db_xref="taxon:32630"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                    note="Novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       969 bp
from Patent WO0242461.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GI:23343119
                                                                                                                                                                                                                                                                                                                                                                Sequence"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Lowitz, K.P. versions of
                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                    6; Length 969;
                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and Pride,
human g pr
                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein-coupled
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PAT
                                                                                                                                                                                                                                                         o,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-SEP-2002
                                                                                                                                                                                                                                                           Gaps
                                          671
    180
                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1151
                                                                                                                               611
                                                                                                                                                                         60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           720
```

'n

```
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                               RESULT
E43451
LOCUS
                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                              당
                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                      뮍
                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                   음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                             몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     뭥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 정 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ঠ
                                                                 REFERENCE
   COMMENT
                                      AUTHORS
TITLE
                           JOURNAL
                                                                                                                                                                                                                                                                         1452
                                                                                                                                                                                                                                                                                                                                                                                                                             1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1092
                                                          E43451

E43451.1 GI:18627717

JP 2000166576-A/2.

Homo sapiens (human)

Homo sapiens

Eukaryota; Metazoa; Chordata; Ci
Mammalia; Eutheria; Primates; Ci
1 (bases 1 to 969)
                                                                                                                                                                                                                                                                                                                                                                                                   781
                                                                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                               961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           732
Watanabe, T., Terao, S. and Matsui, H.
Novel protein G-coupled receptor protein
Patent: JP 2000166576-A 2 20-JUN-2000;
TAKEDA CHEM IND LTD
OS Homo sapiens (human)
                                                                                                                                                                                 E43451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGCAGTGA 1460
                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGGATCCACCTGGATTGGAAAGICTTATTTTGTCATGTGCATCTAGTTTCCATTTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCCCAGATACCTGTCATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                 TCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACAGTGCTGGTCTTCCTCTGTGGCCTGCCCTTTTGGCATTCAGTGGGCCCTGTTTTCC
                                                                                                                                                                                                                                               GAGCAGTGA
                                                                                                                                                                                                                                                                                                              GTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTG
                                                                                                                                                                                                                                                                                                                                                                                                   TCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCTGTGGGTCCAGCCTGGTCCTGCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATCGCGTGGCTGGTTTTTTTATGTGTGGGTTCTCTGTGGGTCCAGCCTGGTCCTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTAAACGTCAGATTTCATTACA
                                                                                                                                                                                                                                                                                                  GTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCCTGGAGCTGTCGGGAAGCAGATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACAGTGCTGGTCTTCCTCTGTGGCCTGCCCTTTGGCATTCAGTGGGCCCTGTTTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACA
                                                                                                                                                                  protein G-coupled
                                                                                                                                                                                                                                               969
                                                                                                                                                                 969 bp DNA linear PAT 3 receptor protein and DNA thereof.
                                                                             Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                         and
                                         DNA thereof
                                                                                                                                                                               PAT 31-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1271
                                                                                                                                                                                                                                                                                                                         1451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1031
                                                                                                                                                                                                                                                                                                                                                                           1391
                                                                                                                                                                                                                                                                                                                                                                                                                             1331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1151
                                                                                                                                                                                                                                                                                                  960
                                                                                                                                                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                                                                                                                                                                                     840
                                                                                                                                                                                                                                                                                                                                                                                                                                                      780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                  ঠ
                                                                     Ś
                                                                                                     밁
                                                                                                                         S
                                                                                                                                                                          Ś
                                                                                                                                                                                                          밁
                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                  밁
                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
Matches 968; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PN JP 2000166576-A/2

PD 20-JUN-2000

PF 30-SEP-1999 JP 1999278116

PR

TAKUYA WATANABE, SHIZUKO TERAO, HIDEKI MATSUI

PI TAKUYA WATANABE, SHIZUKO TERAO, HIDEKI MATSUI

PC C12N15/09, A61K38/00, A61K39/395, A61K39/395, A61K45/00, A61K48/00,

PC R61P43/00,

PC C07K14/705, C07K16/28, C12N1/21, C12N5/10, C12P21/08, PC

G01N33/15,

PC G1N33/15,

PC G1N33/53, G01N33/566, G01N33/577//(C12N1/21, C12R1:19), (C12N5/10, PC

C12R1:91),

PC C12N5/00,

PC C12N5/00, C12R1:19), (C12P21/08, C12R1:91), C12N15/00, A61K37/02,

PC C12N5/00, C12R1:91)

PC C12N5/00, C12R1:91)

PC C12N5/00, C12R1:91)

PT S0UTCE / Organism='Homo Bapiens (human)'.
                                                                              1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                     541
                                                                                                                               972
                                                                                                                                                         421
                                                                                                                                                                                 912
                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                     792
                                                                                                                                                                                                                                                                                                                                      732
                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                               612 GCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  552 ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                             GTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGC
                                                                                                                                                                                                                                                                                                                                                              GTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCTCTTCCTTAGCGGCCACATT
                          AGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC
                                                                     ATCGCGTGGCTGGTTTTTTATGTGTGGTTCTGTGGGTCCAGCCTGGTCCTGCTGGTC
                                                                                                                                                                      GTCATGTGTGTGCCTGTGGGGCCCTGTCCCCTGCTGCGAGTATCCTGGAGTGGATGTTC
                                                                                                                   TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACA
                                                                                                                                                         GTCATGTGTGTCCTGGGGCCCTGTCCCTGCGGAGTATCCTGGAGTGGATGTTC
                                                                                                                                                                                                           TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCCCAGATACCTGTCATCG
                                                                                                                                                                                                                       TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCCCCAGATACCTGTCATCG
                                                                                                                                                                                                                                                                          GTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGC
                                                                                                                                                                                                                                                                                                              ATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCCATCTCCAAAATCCTCAGTCCT
                                                                                                                                                                                                                                                                                                                               ATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCCATACTCCCAAAATCCTCAGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                  GCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TAKUYA WATANABB, SHIZUKO TERAO, HIDEKI MATSUI
C12N15/09, A61K38/00, A61K39/395, A61K39/395, A61K45/00, A61K48/00,
A61F33/00,
C07K14/705, C07K16/28, C12N1/21, C12N5/10, C12F21/02, C12F21/08, PC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (C12P21/02, C12R1:19), (C12P21/08, C12R1:91), C12N15/00, A61K37/02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Homo sapiens"
/mol_type="genomic DNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism='Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  35.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 918; DB Pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>ه</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ۲,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 969;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                  1031
                              1151
                                                                               1091
                                                                                                          540
                                                                                                                                                                                                                                   911
                                                                                                                                                                                                                                                                                      851
                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                           671
                                                       600
                                                                                                                                                           480
                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                       791
                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                         731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6
     660
```

Query Match Best Local Similarity 99.9%; Pred. No. 0; Matches 966; Conservative 0; Mismatches 1; Indels 0; Gaps 0; Matches 966; Conservative 0; Mismatches 1; Indels 0; Gaps 0;  Qy 492 ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG 551  Db 1 ATGGATTCAACCATCCCAGTCTTGGGTACAGACTGACACCAATCAACGGACGTGAGGAG 60  Qy 552 ACTCCTTGCTACAAGGAGACCCTGAGGTTCACGGGGCTGACGTGCATCCCTTGTC 611	Op
RESULT 15 AP474987 AP474987 AP474987 AP474987 AP474987 DEFINITION Homo sapiens G protein-coupled receptor SNSR1 gene, complete cds. ACCESSION AP474987 VERSION KEYWORDS SOURCE ORGANISM Homo sapiens ORGANISM Esukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo. REFERENCE 1 (bases 1 to 969)	97 12 COCCTUALACIAN COCCTUTION TO THE CONTROL OF THE CONTROL OF THE COCCTUAL COCCTUA

, 22	Db	8	Db	Ą	g Q	Db	Ş	Db	Ş	Db	ş	Db	8	Db	Q.	Query Matc Best Local Matches 9	OBTCIN						CDS		mona	rc	COMMENT	JOURNAL	AUTHORS	TEMBUR TEMBUR TAMES	JOURNAL	TITLE	AUTHORS	DOCT-
979 TCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACAATCGCGT 1038	428 GTGTCCTGCTCTGGGCCTGCCCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACT 487	919 GTGTCCTGCTCTGGGCCCTGTCCCTGCTGCGGAGTATCCTGGAGTGGACTGTGTCTGTGACT 978	368 CCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCCCAGATACCTGTCATCGGTCATGT 427	859 CCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCCCAGATACCTGTCATCGGTCATGT 918	799 CCTTTCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGT 858		739 CGCCGTTACGCCTCATCAATATCCGCCATCCCCAAAATCCTCAGTCCTGTGATGA 798	188 TCTACATCCTCAACCTGGTCGCGGCCGACTTCCTTCCTTTAGCGGCCACATTATATGTT 247	679 TCTACATCCTCAACCTGGTCGCGGCCGACTTCCTTCCTTTAGCGGCCACATTATATGTT 738	128 CAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCA 187	619 CAGGAAACGCGGTTGTGCTCTGGGCTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCA 678	68 GCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTTCCCTTGTCGCGCTGA 127	559 GCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGA 618	8 CAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAGACTCCTT 67	499 CAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAGACTCCTT 558	Match 30.7%; Score 805; DB 9; Length 969; ocal Similarity 99.8%; Pred. No. 0; s 905; Conservative 0; Mismatches 2; Indels 0; Gaps 0;	SFRQRQNRQNLKLVLQRALQDTPEVDEGGGWLPQETLELSGSKLEQ"	CDFLFSGANSVWCETSDFITIAWLVFLCVVLCGSSLVLLVRILCGSRKMPLTRLYVTI LLTVLVFLLCGLPFGIQWALFSRIHLDWKVLFCHVHLVSIFLSALNSSANPLIRFVG	NAVVLWLLGCRMRRNAVSIYILNLVAADFLFLSGHIICSFLRLINIRHPISKILSFVM TFFYFIGLSM.SAISTERCLSIMPIWYHCRRPRYLSSVMCVLLWALSLLRSTLEMMF	<pre>/db_xref="GI:31747895" /translation="MDPTIPVLGTELTPINGREETPCYKQTLSFTGLTCIVSLVALTG</pre>	<pre>/product="G protein-coupled receptor SNSRl" /protein_id="AAL86878.2"</pre>	/codon_start=1		/product="G protein-coupled receptor SNSR1"	/ mor rype- yeromre was /db xref="taxon:9606"	(D)	On Jun 16, 2003 this sequence version replaced gi:19338907.	Submitted (5-JAN-2002) Molecular Biology, AstraZeneca, 7171	Ahmad, S., Banville, D., Fortin, Y., Lembo, P.M. and O'Donnell, D.	21850634 11850634 2 (base 1 to 066)	Nat. Neurosci. 5 (3), 201-209 (2002)	Proenkephalin A gene products activate a new family of sensory	Lembo, P.M., Grazzini, E., Groblewski, T., O'Donnell, D., Roy, MO., Zhang, J., Hoffert, C., Cao, J., Schmidt, R., Pelletier, M., Labarre, M., Gosselin, M., Fortin, Y., Banville, D., Shen, S., Strom, P., Payza, K.,	TILL TO CONTRACT TO CONTRACT TO CONTRACT TO DOM M.O.

Search completed: October 29, 2004, 22:34:19 Job time: 10845 secs

```
Minimum
Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Title:
                                                                                                                                                                                                                                                               Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Post-processing: Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Total number of hits satisfying
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Word size :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                    ő
                                                                                                                                                                                                                                                                                                          Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB DB
                                                                                                                                                                                                                                                    Score
  1088
969
969
966
966
918
918
915
915
867
700
700
                                                                                                                                                                                  1088
                                                                                                                                                                                                         1093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                          3 2 1 Z
                                                                                                                                                                                                                                                  Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        October 29, 2004, 16:07:33 ; Search time 1225 Seconds (without alignments)
11218.763 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OLIGO_NUC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-867-570-1
2618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gapop 60.0 , Gapext 60.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4134886 seqs,
                       36.9
35.1
35.0
35.0
35.0
35.0
28.7
28.7
26.7
                                                                                                                                      41.6
37.0
37.0
37.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Geneseq_23Sep04:*
geneseqn1980s:*
                                                                                                                                                                                                                                                                                                                                                                                        geneseqn2002bs:*
geneseqn2003as:*
geneseqn2003bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                           geneseqn2002as:*
                                                                                                                                                                                                                                                                                                                                                                                                                                      geneseqn2001bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                               geneseqn2000s:*
geneseqn2001as:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       geneseqn1990s:*
                                                                                                                                                                                                                                                                                                                                                                  geneseqn2003cs:*
geneseqn2003ds:*
                                                                                                                                                                                                                                                                                                                                                      geneseqn2004s:*
                                                                                                                                                                                                                                                   Length
                                                                            1683
969
969
966
                                                                                                                                    2618
8622
1369
1400
1400
1400
969
969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GenCore version 5.1.6 (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                    BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2624710521 residues
                                                        10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          chosen
                                                                  ADF29104
ADO44605
AAA70342
                                                                                                    ADF70583
AAA29812
                                                                                                                                    AAA29811
ABT04875
ADO30080
                                                                                                                                                                                                                  ABK52822
ABK52823
           ADC12765
ABZ35127
AAZ10068
                                                                                                                                                                                  ABZ42595
                                                                                                                                                                                                                                                    Ħ
                                                                                                                          ADO44603
                                                                                                                                                                      ADH08534
                                                                                                                                                                                                                                                                                    SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           41862
                                                                           Aad33751 Human Mrg
Abz42595 Human G p
Adh08534 DNA seque
Aaa29811 Human G p
Abt04875 Human G p
Adc30080 Human GPC
Adc44603 Human HI7
Adf70583 Orphan re
Aaa29812 Human G p
Adf29104 Human GPC
Adc44605 Human HI7
Aaa70342 Human nov
Add18121 Human G-p
Acc44771 Human G p
Adc12765 Human GPC
Abz35127 Human gen
Aaz10068 Human dor
Aaz10067 Human dor
                                                                                                                                                                                                       Abk52822 cDNA enco
Abk52823 Genomic D
Adc86820 Human GPC
                                                                                                                                                                                                                                                   Description
```

45	44	43	42	41	40	39	38	37	36	3 5	ω 4	ω ω	32	31	30	29	28	27	26	25	24	23	22
120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	179	270	275	275	291	299
4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	6.8	10.3	10.5	10.5	11.1	11.4
2040	1369	1116	997	997	973	969	969	969	969	969	969	969	969	969	969	964	964	969	1323	275	275	291	954
Q	10	4	12	o	4	12	11	10	œ	æ	o	σ	u	4	N	12	9	N	ഗ	12	10	8	10
AAD33744	ADC86444	AAH49507	ADN42289	ADI16635	AAK51462	ADO30078	ADL96465	AAD61647	ABZ81334	ACC44772	ABZ42891	AAD27494	AAS07944	AAD20943	AAZ10070	ADN42291	ADI16637	AAZ10069	AAS85260	ADI55528	ACA55732	ACA04716	ADC12723
. Aad33744 Human Mrg	Adc86444 Human GPC	Aah49507 Human GTP	Adn42289 Human cDN	Adil6635 Human NOV	Aak51462 Human pol	Ado30078 Human GPC	Adl96465 Human G p	Aad61647 Human GPC	Abz81334 Human Dor	Acc44772 Human G p	Abz42891 Human GPC	Aad27494 Human G-p	Aas07944 Human cDN	Aad20943 Human G p	Aaz10070 Human dor	Adn42291 Human cDN	Adi16637 Human NOV	Aaz10069 Human dor	Aas85260 DNA encod	ш	Aca55732 Human sig		Adc12723 Human GPC

## RASCULT 1 ABKS2822 ID ABKS2822 AX ABKS2 XX ABKS XX CDNA XX CUNA XX CUN Homo sapiens Human; G-protein coupled; receptor; GPCR; human protease; human therapeutic protein; query sequence; search; gene; sequence database; non-human transgenic animal; gene ther cDNA encoding human G-protein coupled receptor (GPCR). 27-AUG-2002 ABK52822; ABK52822 standard; cDNA; 2618 BP. chromsome 3. (first entry) Location/Qualifiers gene therapy;

88;

ALIGNMENTS

WO200234914-A1. /product= "Human G-protein coupled receptor (GPCR)"

02-MAY-2002.

10-OCT-2001; 2001WO-US031592

25-OCT-2000; 2000US-00695045. 31-MAY-2001; 2001US-00867570.

(PEKE ) PE CORP NY.

Wei M, Zhao Q, Woodage 'n Ď, Francesco < Beasley

<u>묒</u>

WPI; 2002-463360/49. P-PSDB; AAU97598.

Novel isolated G-protein coupled receptor peptide useful for treating disorder characterized by absence of, in appropriate or unwanted expression of the receptor protein, and as immunogens to raise

Claim 4; Fig 1; 75pp; English

X8888888888888888XX

```
Query Match
Best Local Simi
Matches 2618;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present invention relates to a new G-protein coupled receptor (GPCR) peptide. The invention is useful for identifying a modulator of GPCR and for treating a disease or condition mediated by a human protease. The invention is also useful as models for the development of human therapeutics, for identifying therapeutic proteins, as targets for development of human therapeutic agents, and as query sequence to perform a search against sequence databases to, for e.g., identify other family members of related sequences. The vector of the invention is useful for producing a GPCR protein or peptide, for conducting cell-based assays involving the GPCR protein or its fragment, for identifying GPCR protein mutants whose functions are affected, and to produce non-human transgenic animals. The present nucleic acid sequence represents the human G-protein coupled receptor (GPCR) gene located on chromsome 3. This sequence encodes the human G-protein coupled receptor (GPCR) protein coupled
                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                   661
                                                                                                                                                         601
                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                            661
                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                        721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CACCAGGATTGGAAGCTTCCTGAGGCCTCCCCAGAAGCAGAAGCTGCTATGCTTCTTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGTCTGTAGAGCTATTAGCCAGTTAAACCCCATTTCCTTCATAAATTTCCCAGTCTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCTCCCTCTCTCTACTCCTGCTCTCACCATGTGAGACGCCTCGCTCCCCCTTTGCCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AACAATTGCCGCGAATTCGGCACGAGATGAAATCTAGTTGTTAAAAGCGTGTAGCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATCCCAAGGTGCTTTCCTGCTGTCTTCCAGTCTCCTGCTGGTGTCTCCCCAGTGTCTCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AACAATTGCCGCGAATTCGGCACGAGATGAAATCTAGTTGTTTAAAAGCGTGTAGCACCT
                    GCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGGCCATCCCCATCTCCAAAA
                                                                                                            GCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCTCTTCCTTA
                                                                                                                                                                                TTTCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGGCTCCTGGGCTGCCATGC
                                                                                                                                                                                                                                                                        GACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCG
                                                                                                                                                                                                                                                                                                                                                          GGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGGATGTCAAACAGGATAAAGAAGAATGGAAAGCAAATCCTCATGGGTCATCAGACTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCCACCAGAAACCAGAAATAAAAAGAATCCCACTGATGTGGTACATAGAAGCCACTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCCACCAGAAACCAGAAATAAAAAGAATCCCACTGATGTGGTACATAGAAGCCACTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATCCCAAGGTGCTTTCCTGCTGTCTTCCAGTCTCCTGGTGTCTCCCAGTGTCTCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGTCTGTAGAGCTATTAGCCAGTTAAACCCATTTCCTTCATAAATTTCCCAGTCTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CACCAGGATTGGAAGCTTCCTGAGGCCTCCCCAGAAGCAGAAGCTGCTATGCTTCTTGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2618
                                                                                                                                                                                                                                               GACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCG
                                                                                                                                                                                                                                                                                                                                     GGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                       TGGGATGTCAAACAGGATAAAGAAGAATGGAAAGCAAATCCTCATGGGTCATCAGACTGG
100.0%;
ilarity 100.0%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 2618;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ç;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             300
                                                                   720
                                                                                                                                                         660
                                                                                                                                                                                                  660
                                                                                                                                                                                                                                               600
                                                                                                                                                                                                                                                                                        600
                                                                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
                           780
                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                          र्
                                                                                                                                                                              밁
                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                              á
                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                               5
                                                                                        문
                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1261
                                             1801
                                                                                          1741
                                                                                                                                                                                1681
                                                                                                                                                                                                                         1681
                                                                                                                                                                                                                                                                      1621
                                                                                                                                                                                                                                                                                                            1621
                                                                                                                                                                                                                                                                                                                                                       1561
                                                                                                                                                                                                                                                                                                                                                                                                  1561
                                                                                                                                                                                                                                                                                                                                                                                                                                           1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCCCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCA
                             CCTGATAGTATCAAAAAGGAAGATTCCTTATTAATCTGTCAGACTATGTTCCCCCTGAAAA 1860
                                                                                                                                                                                                                                                                                             CACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGATTCTCCTTGATATTACCAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACAGGACTTTGAGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACAGGACTTTTGAGAGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTTGGAGCTGTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCCTTTGGCATTCAGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTAAACGTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCTGTCATCGGTCATGTGTGCTCTGGGCCCTGTCCCTGCTGCGGAGTATCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCTGTCATCGGTCATGTGTGTGCTGCTCTGGGCCCTGTCCCTGCTGCGGAGTATCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCCTCAGTCCTGTGATGACCTTTCCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCATCTCCAAAA
ATTGTAATAAAAGGAGTTGCTGTCCACAACCCCTAAAACTCTTCTTTATACTTGTTTCCTA
                                                                                                                   ATTGTAATAAAAGGAGTTGCTGTCCACAACCCTAAAACTCTTCTTATACTTGTTTCCTA
                                                                                                                                                                                                       ACATITICCCTGTTAICTIGCACTGAAICTTICCTACTGAACACITTTTCTGCACTITTC
                                                                                                                                                                                                                                                                    CACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTTGGATTCTCCTTGATATTACCAAT
                                                                                                                                                                                                                                                                                                                                                          TCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTAACCTGACAGTTGCAGTTTT
                                                                                                                                                                                                                                                                                                                                                                              TCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTAACCTGACAGTTGCAGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCTTCTGCCTCAGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCTTCTGCCTCAGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCATCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCTTTGGCATTCAGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCCTGCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCTGCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCTGTGGGTCCAGCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCTGTGGGTCCAGCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAG
                                                                                               1800
                                                                                                                                     1800
                                                                                                                                                                                  1740
                                                                                                                                                                                                                                                                                                                 1680
                                                                                                                                                                                                                                                                                                                                                          1620
                                                                                                                                                                                                                                                                                                                                                                                                       1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     840
```

S

밁 Ş 밁 ঠ

Ś 문 S 멼 8 뮍 δ 문 Ś 밁

밁

S 밁 S 밁 á В S 밁 S

```
RESULT 2
ABK52823
  밁
                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     र्श
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
 CDS
                                                                    Human; G-protein coupled; receptor; GPCR; human protease; human therapeutic protein; query sequence; search; gene; ds; sequence database; non-human transgenic animal; gene therapy; chromsome 3.
                                                                                                                                        Genomic DNA encoding human G-protein coupled receptor (GPCR)
                                         Homo sapiens
                                                                                                                                                                       27-AUG-2002
                                                                                                                                                                                                                            ABK52823 standard; DNA; 8622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2401
                                                                                                                                                                                                                                                                                                                                                            2521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1861
                                                                                                                                                                                                                                                                                                                              АGGAGGATCCTGGTGCTGGAAAAAAAAAAAAAAAAAAA 2618
                                                                                                                                                                                                                                                                                                                                                          TCTCAATTATGGTATCTGGATAATAACTTACAGTTGGTACAGAATTCTGATACATGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCTCAATTATGGTATCTGGATAATAACTTACAGTTGGTACAGAATTCTGATACATGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TAGTTTTATGGCTGTTTACATGAGAAGCAAAACTGAAAACATCTGACCTTTCCATGACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TAGTTTTATGGCTGTTTACATGAGAAGCAAAACTGAAAACATCTGACCTTTCCATGACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTAGGAGAATTCTTCATACTTCCAGGTTTTGTATAAATTGTTCTGATTGTAACTTTCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTTTAAAGTGGAAATTATCTTGAAAACCATTTATTCACTTACAGATTCTTTCAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGAGGAGCCTATAAATATGTCCCCACCAGTTTCATTTTGGCCATTGGAAAACCTCAATATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCCCTTCCCCTTGAGAACTGGTAAGTTCTTATTTAGCTCTTCCTTGGACTAATGAACTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGTCATTTGTCCACAGCATGGTGACATGTTGGCCTTGGTTTCTAGTAAAGACAATCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGTCATTTGTCCACAGCATGGTGACATGTTGGCCTTGGTTTTCTAGTAAAGACAATCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGAGAGATTCTCCCTTCATAAAAACAGTCTTAGAAATTGGTTTTATGAATAGCCCTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGAGAGATTCTCCCCTTCATAAAAACAGTCTTAGAAATTGGTTTTATGAATAGCCCTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGTTCTGCTACCTCTAAATTCCATTGAATTCTCAGATATAAAGCAAAATAATGACCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGTTCTGCTACCTCTAAATTCCATTGAATTCTCAGATATAAAGCAAAATAATGACCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCATGTTCCCTTTTATGACTGGAGGCATTACTGCAGTTGGAAGCTCAATTCTTAATAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCATGTTCCCTTTTATGACTGGAGGCATTACTGCAGTTGGAAGCTCAATTCTTAATAAGT
                                                                                                                                                                                                                                                                                                     AGGAGGATCCTGGTGCTGGAAAAAAAAAAAAAAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTAGGAGAATTCTTCATACTTCCAGGTTTTGTATAAATTGTTCTGATTGTAACTTTCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTTTAAAGTGGAAATTATCTTGAAAACCATTTATTATTCACTTACAGATTCTTTCAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGAGGAGCCTATAAATATGTCCCCACCAGTTTCATTTTGGCCATTGGAAACCTCAATATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCCCTTCCCCTTGAGAACTGGTAAGTTCTTATTTAGCTCTTCCTGGACTAATGAACTAG
                                                                                                                                                                       (first entry)
Location/Qualifiers 4300. .8496
                                                                                                                                                                                                                                                                                                     2618
                                                                                                                                                                                                                                                                                                                                                                                      2580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2160
                                                                                                                                                                                                                                                                                                                                                          2580
                                                                                                                                                                                                                                                                                                                                                                                                                   2520
                                                                                                                                                                                                                                                                                                                                                                                                                                               2520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1920
```

```
S
                                  밁
                                                            S
                                                                                           문
                                                                                                                  8
                                                                                                                                                    밁
                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                Matches 1101;
                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                               The present invention relates to a new G-protein coupled receptor (GPCR) peptide. The invention is useful for identifying a modulator of GPCR and for treating a disease or condition mediated by a human protease. The invention is also useful as models for the development of human therapeutic groteins, as targets for thevelopment of human therapeutic agents, and as query sequence to perform a search against sequence databases to, for e.g., identify other family members of related sequences. The vector of the invention is useful for producing a GPCR protein or peptide, for conducting cell-based assays involving the GPCR protein or its fragment, for identifying GPCR protein mutants whose functions are affected, and to produce non-human transgenic animals. The present nucleic acid sequence represents the human G-protein coupled receptor (GPCR) gene located on chromosome 3. This sequence encodes the human G-protein coupled receptor (GPCR) protein of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel isolated G-protein coupled receptor peptide useful for treating disorder characterized by absence of, in appropriate or unwanted expression of the receptor protein, and as immunogens to raise
                                                                                                                                                                                                                                                                          Sequence 8622 BP; 2684 A; 1921 C; 1679 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2002-463360/49.
P-PSDB; AAU97598.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25-OCT-2000; 2000US-00695045.
31-MAY-2001; 2001US-00867570.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 4; Fig 3; 75pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-OCT-2001; 2001WO-US031592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-MAY-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     intron
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200234914-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (PEKE)
                                                                                                                                                                                                                                Local Similarity
                                   7622
                                                                                           7562
                                                                                                                                                      7502
                                                                                                                        526
      646
                                                                                                                                                                                   466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PE CORP NY.
                                                                                                                                                                       GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC
   TGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCG
                                                                                                                       TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG
                                                                GGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCC
                                                                                            TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG
                                                                                                                                                      GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC
                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /number= 1
4320..7502
/*tag= c
/number= 1
7503..8496
/*tag= d
/number= 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /*tag= a
4300. .4319
/*tag= b
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Woodage
                                   GCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCC
                                                                                                                                                                                                               42.1%; Score 1101;
100.0%; Pred. No. 0;
ative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Di.
                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Francesco
                                                                                                                                                                                                                                                                          2338
                                                                                                                                                                                                                                              BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ۲,
                                                                                                                                                                                                                                              6
                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Beasley
                                                                                                                                                                                                                                                                          T; 0 U; 0 Other
                                                                                                                                                                                                                                            Length 8622;
                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 묮
                                                                                                                                                                                                                0
       705
                                                                                                                        585
                                                                                                                                                                                     525
                                   7681
                                                                645
                                                                                              7621
                                                                                                                                                      7561
                                                                                                                                                                                                                0
```

밁

7682

```
RESULT 3
ADC86820
ID ADC8
XX
AC ADC8
XX
DT 01-J
XX
XX
KW ds;
KW ds;
                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                 $
                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              유정
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     뭥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                  멍
                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
ds; gene; human; GPCR; guanosine triphosphate-binding protein coupled receptor; gene
                                        Human GPCR gene SEQ ID NO:1273.
                                                                    01-JAN-2004
                                                                                                                           ADC86820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGGCCTGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCGCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACT
                                                                                                                                                                                                                                                                                                                       CCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACA
                                                                                                                                                                                                                                                                                                                                                                              AGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTTCCTCAGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGTGCATCTAGTTTCCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCCATCATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGGGTCCAGCCTGGTCGTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCGCCGCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCA
                                                                                                                           standard; DNA; 1369
                                                                                                                                                                                                          TCTGCCTCAGAAATGTCTCAG 1566
                                                                                                                                                                                                                                                                                                                                                                AGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                     ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                   ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC 1365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGTGCATCTAGTTTCCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTT
                                                                                                                                                                                                                                                     GGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCT
                                                                                                                                                                                                                                                                             GGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TIGGCATTCAGIGGGCCCTGTTTTCCAGGATCCACCIGGATTGGAAAGTCTTATTTTGTC
                                                                    (first entry)
                                                                                                                           ВР
                                                                                                                                                                                              8602
therapy
                                                                                                                                                                                                                                                                                                                                                                                        1425
                                                                                                                                                                                                                                                                              1545
                                                                                                                                                                                                                                                                                                                                     1485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7801
                                                                                                                                                                                                                                                                                                                                                                8461
                                                                                                                                                                                                                                                                                                                                                                                                                     8401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   825
                                                                                                                                                                                                                                                     8581
                                                                                                                                                                                                                                                                                                          8521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             885
```

```
Suwa
                                                                                                          New polynucleotide, useful for preparing a composition for treating a patient in need of increased or suppressed activity or expression of the guanosine triphosphate-binding protein coupled receptor.
                                                                                          Claim 1;
                                                                                                                                                                                     (NAAD-)
(ADSC-)
                                                                                                                                                                                                                                                02-JAN-2003
                                                                                                                                                                                                                                                                 EP1270724-A2
                                                                                                                                                                                                                                                                                 Homo
                                                                                                                                             P-PSDB;
                                                                                                                                                                                                               18-JUN-2001; 2001JP-00246789
                                                                                                                                           2003-315783/31.
DB; ADC86821.
                                                                                                                                                                     Σ
                                                                                                                                                                                                                                                                                 sapiens.
                                                                                                                                                                                     NAT INST ADVANCED IND SCI & TECHNOLOGY.
CENT ADVANCED SCI & TECHNOLOGY INCUBATIO.
                                                                                          SEQ ID NO 1273; 28pp; English.
                                                                                                                                                                                                                               2002EP-00013517
                                                                                                                                                                     Akiyama
                                                                                                                                                                     Aburatani
```

The invention relates to a novel polynucleotide encoding a guanosine triphosphate-binding protein coupled receptor (GPCR). A polynucleotide of the invention may have a use in gene therapy. The polynucleotide and polypeptide are useful for preparing a composition for treating a patient in need of increased or suppressed activity or expression of the guanosine triphosphate-binding protein coupled receptor. The polynucleotide sequences shown in ADC85548-ADC87616 encode GPCR's of the

Sequence 1369 BP; 272 A; 372 C; 340 G; 385 T; 0 U; 0 Other;

DB 10;

Length

δ 밁 á 밁 8 밁 8 밁 S 밁 á 문 밁 밁 8 Query Match 41.7%; Best Local Similarity 99.8%; Matches 1193; Conservative 826 475 415 355 646 295 586 466 766 706 GGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTTGGCTCC GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC 525 GCCGCCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGC TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACT ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCA ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCA ACTTCCTCTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCCTCATCAATATCCGCC TGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCG GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCCATCTGGTACCACT ACTTCCTCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCC TGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCG Score 1093; DE Pred. No. 0; 0; Mismatches 0 بر • Indels 0, Gaps 585 594 885 534 474 765 414 705 354 645 234 654 945 294 0

946

TGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTT 1005

an

```
RESULT 4
AAD37
AAD37
AC AAD3
AC AAD3
AC Huma
CC Huma
CC Huma
CC Homo
CX FT CDS
FT CDS
FT CDS
FT CDS
FT CDS
AC WO20
AX WO20
AX WO20
AX WO20
AN 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   · 함 성 함
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                  Human; mas-related gene; G-protein coupled receptor; drg-12 protein; receptor; sensory perception; pain; analgesic; MrgX3; gene; ds.
                                                                                                                                                                                                                                                                     Human MrgX3 (mas-related gene)
                                                                                                                                                                                                                                                                                                        01-JUL-2002
04-MAY-2001; 2001WO-US014519
                                                                                                                                                                                                                                                                                                                                                                         AAD33751 standard;
                                                                WO200183555-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1066
                                                                                                                                                                                    sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTAACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTAACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  caggetgracgraccarcetecacagractractrectecteristics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGGGTCCAGCCTGGTCCTGCTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTAATTCTGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                              GACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC
                                                                                                                                                                                                                                                                                                        (first
                                                                                                                Location/Qualifiers
332. .1300
/*tag= a
                                                                                                  product= "Human MrgX3
                                                                                                                                                                                                                                                                                                                                                                         DNA;
                                                                                                                                                                                                                                                                                                                                                                         1400
                                                                                                                                                                                                                                                                       DNA.
                                                                                                  protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   714
                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                             음 성
                                                                                                                       몽
                                                                                                                                                                                                  음 성
                                                                                                                                                                                                                                                           B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .6
 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Loc
Matches
 853
```

```
Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The invention relates to Mrg (mas-related gene) protein, which is a G-protein coupled receptor and drg-12 protein, which is a receptor. The invention is useful for identifying compounds that bind to it, especially agonists or antagonists. Administration of an agent (e.g. the identified agonist) that increases the expression of Mrg in a mammal may be used for treating impaired sensory perception in a mammal, especially pain. The antagonist may also be useful for treating impaired sensory perception in a mammal. The present sequence is human MrgX3 DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 04-MAY 2000; 2000US-022027P.
01-AUG-2000; 2000US-0222344P.
03-NOV-2000; 2000US-00704707.
19-APR-2001; 2001US-0285493P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1400 BP; 276 A; 375 C; 363 G; 386 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Page 128-129; 185pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Isolated polypeptide, Mrg, which is a G-protein coupled isolated polypeptide, drg-12, which is also a receptor, identifying agonists or antagonists for treating pain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
nes 1088; Conserv
                    1013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2002-171346/22.
                                                                   793
                                                                                                              953
                                                                                                                                                                733
                                                                                                                                                                                                             893
                                                                                                                                                                                                                                                               673
                                                                                                                                                                                                                                                                                                         833
                                                                                                                                                                                                                                                                                                                                                         613
                                                                                                                                                                                                                                                                                                                                                                                                         773
                                                                                                                                                                                                                                                                                                                                                                                                                                                        553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CALIFORNIA INST OF TECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAE21296
                                                                   TATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACC
CCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGCTGCGGAG
                                                                                                                                                                                                                                                                                   CGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCG
                                                                                                                                                                                                                                                                                                                                                                                    CTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGCATCGTTTCCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTTGGCTCCTGGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>5</u>
                                                                                                                                                                ccccagaraccrercaregerearerererererereseccerereceses
                                                                                                                                                                                                                                                       CTCCANAATCCTCAGTCCTGTGATGACCTTTCCCCTACTTTATAGGCCTAAGCATGCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTTGGCTCCTGGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AATCAACGGACGTGAGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            41.6%; Score 1088; I ilarity 100.0%; Pred. No. 0; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Dong X,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Zylka M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Han
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Simon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 1400;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        receptor and useful for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
```

0

432 592 372

AACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCTGTGGGTC

1072 852 1012 792 952 732 892 672 832 612 772 552 712 492

```
ABSULT 5
ABZ4595
ID ABZ4
XX ABZ4
AC ABZ4
XX ABZ4
XX ABZ4
XX ABZ4
XX ABZ4
XX ABZ4
XX G pr
KW G pr
KW G pr
KW G pr
KW Jerow
KW Jero
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          G protein-coupled receptor; GPCR; antigenic peptide; gene therapy; G protein-coupled receptor modulator; antibody; immune-related disease; growth-related disease; cell regeneration-related disease; AIDS; cancer; immunological-related cell proliferative disease; autoimmune disease; Alzheimer's disease; atherosclerosis; infection; osteoarthritis; allergy; osteoporosis; cardiomyopathy; inflammation; Crohn's disease; diabetes; graft versus host disease; Parkinson's disease; multiple sclerosis; pain; psoriasis; anxiety; depression; schizophrenia; dementia; memory loss; mental retardation; epilepsy; asthma; tuberculosis; obesity; nausea; hypertension; hypotension; renal disorder; rheumatoid arthritis; trauma;
   Burmer GC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human G protein-coupled receptor MrgX3 nucleotide SEQ ID NO:673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABZ42595
                                                                                                                                       19-DEC-2000; 2000US-0257144P
                                                                                                                                                                                                             19-DEC-2001;
                                                                                                                                                                                                                                                                                                                                             WO200261087-A2
                                                                        (LIFE-) LIFESPAN BIOSCIENCES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         standard; DNA; 1400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCT 1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCA 1252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCTTTGGCAT 1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCTTCTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGAGCAATGCTGCCCTGCCCTTGACAATTATATGCATTTTTCTTAGCCTTCTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCCTGTCAGACAGGACTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACAGGACTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTACGTGACCATCCTCCACAGTGCTGGTCTTCCTCTGTGGCCTGCCCTTTGGCAT 1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGA 1432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGC 1372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCA
                                                                                                                                                                                                             2001WO-US050107.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTT
   Ū,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1560
                                                                            INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               972
```

```
P-PSDB;
         2003-046718/04.
ABP81750
```

New isolated antigenic peptides e.g., for G protein-coupled receptors (GPCR), useful for diagnosing and designing drugs for treating conditions in which GPCRs are involved, e.g. AIDS, Alzheimer's disease, cancer or autoimmune diseases.

Disclosure; Fig 1; 523pp; English

The present invention describes antigenic peptides (I) comprising: (a) cany one of 1601 sequences (see ABP82019 to ABP83619) of 12-24 amino CC acids. Also described: (1) an assay for the detection of a particular G CC protein-coupled receptor (CPCR) or a candidate polypeptide in a sample; CC and (2) an isolated antibody having high specificity and high affinity or CC avidity for a particular GPCR. (I) can be used as GPCR modulators and in CC gene therapy. The antigenic peptides for GPCRs are useful in detecting an CC antibody against a particular GPCR, and in the production of specific CC antibodies. The peptides and antibodies are also useful for detecting the presence or absence of corresponding GPCRs. The antigenic peptides for CC treating immune-related diseases, growth-related diseases, cell cresting immune-related diseases, growth-related diseases, cell cresence, crautoimmune diseases, e.g. AIDS, Alzheimer's disease, CC atheroscierosis, bacterial, fungal, protozoan or viral infections, CC osteoarthritis, osteoporosis, cancer, cardiomyopathy, chronic and acute cinflammation, allergies, Crohn's disease, diabetes, graft versus host CC disease, parkinson's disease, multiple sclerosis, pain, psoriasis, cell canxiety, depression, schizophrenia, dementia, mental retardation, memory CC loss, epilepsy, asthma, tuberculosis, obesity, nausea, hypertension, cell cany other disorder in which GPCRs are involved. The antibodies may be CC used in immunosassys and immunodiagnosis. ABSA253 to ABSA2869 encode CC GPCR proteins given in ABSB1675 to ABSB2018, which are used in the cCC exemplification of the present invention

1400 B₽; 276 A; 375 C; 363 G; 386 T; 0 U; 0 Other;

Ş 밁 Ş 멼 Ś 밁 Ş 밁 S 밁 **४** ह S Query Match Best Local S Matches 1088 Local Similarity 473 893 613 553 373 1088; 773 713 493 653 433 CAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACC CCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGCTGCGGAG CGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCATCTGGTACCACTGCCGCCG CTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAG CTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCAT CCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCT GTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTG AATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGCCTGAGCTTCACGGGGCTGAC CAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACC CTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAG CTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCAT CCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCT GTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTG AATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGAC Conservative 0; 41.6%; Score 1088; ; Pred. No. 0; Mismatches В 8 0 Length 1400; Indels 0 Gaps 372 672 552 492 0

```
RESULT 6
ADHO8534
ID ADHO
XX ADHO
XX ADHO
XX DHO
XX DNA
XX DNA
XX MAS-
XX MAS-
XX MAS-
XX MAS-
XX MO20
XX WO20
XX WO20
XX I ANA
XX MAS-
XX MAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              중 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            श्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               뭥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    日
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                   WO2004003133-A1
                                                                                                                                                                                                                                                                                                       Mus musculus
                                                                                                                                                                                                                                                                                                                                                   mas-related gene D;
sensory perception;
                                                                                                                                                                                                                                                                                                                                                                                                                           DNA sequence MrgX3.
  Anderson DJ,
                                                                                                  26-JUN-2002; 2002US-00183116.
                                                                                                                                                      13-MAY-2003; 2003WO-US015004
                                                                                                                                                                                                       08-JAN-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25-MAR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADH08534 standard; DNA; 1400
                                                 (CALY ) CALIFORNIA INST OF TECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CACAAATG 1400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGAAATG 1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCTTCTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGCACCTCTGCCCTGTCAGACAGGACTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACAGGACTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTAACTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCAGTGGGCCCTGTTTTCCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCTTTTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCTGTGGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGGTTCTCTGTGGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTACGTGACCATCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCTTTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGGCCCTGTCCCTGCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first
  Dong X,
                                                                                                                                                                                                                                                                                                                                                MrgD; Analgesic; Vulnerary; Ophthalmological; glaucoma; Mrg; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               entry)
  zylka m,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BP.
  Han S,
     Simon MI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 912
```

```
WPI; 2004-083025/08.
P-PSDB; ADH08535.

New mas-related gene D polypeptides, useful as therapeutics or in identifying agonists or antagonists that alter pain perception in a mammal for treating impaired sensory perception, e.g. chronic intractable pain or neuropathic pain.
```

Disclosure; SEQ ID NO 30; 220pp; English.

The present invention relates to an isolated mas-related gene D (MrgD) polypeptide. The MrgD polypeptides are useful as therapeutics or for identifying compounds, i.e. agonists or antagonists, that alter pain perception in a mammal. The compounds are useful for treating impaired sensory perception, e.g. chronic intractable pain or neuropathic pain, promoting wound healing, restoring normal sensitivity following injury, or treating ocular conditions, particularly those associated with pressure such as glaucoma. The Mrg genes or proteins may be used as molecular probes for the detection of cells or tissues related to or involved with sensory perception. The present sequence represents a MrgA (Mrg subfamily) encoding sequence.

Sequence 1400 BP; 276 A; 375 C; 363 G; 386 T; 0 U; 0 Other;

Best Local Similarity 100.0%; Pred. No. 0; Mamatches 0; Indels 0; Gaps 473 CAGACTGGGGTTTCTGAGCATGATTCAACCATCCAGTCTTGGGTACAGAACTGACACCACCAGTCTTTGGTACAGAACTGACACCACCAGTCTTTGGGTACAGAACTGACACCACCAGTCTTTGGTACAGAACTGACACCACCAGTCTTTGGGTACAGAACTGACACCACCAGTCTTTGGGTACAGAACTGACACCACCAGTCTTTGGGTACAGAACTGACACCACCAGTCTTTGGGTACAGAACTGACACCAGTCTTGGGTACAGAACTGACACCAGTCTTGGGTACAGAACTGACACCAGTCTTGGGTACAGAACTGACACCAGTCTTAGACCAGAACTGACACCAGTCTTAGACCAGAACCTGAGCTTACAGAACTGACACCAGTTTTCCCTTGTCGGGTAGAACGAAACCAGAAACCAGTCTTAGAACGAAACGAAGAACCAGAAACCAGTTACAGAAACGAAACCAGAAACCAGTTTCCTTGTCCAGTCTCCAACCAGAAACCAGTACCAGAAACCAGAAACCAGTTACAGAAACGAAACCAGAAACCAGAAACCAGAAACCAGAAACCAGAAACCAGTTACAGAAACCAGTTCCATCCA
0; 532 372 372 372 3432 652 3492 3492 712 6612 6612 6612 6672 6612 6772 6612 6772 677

```
밁
                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ্ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        뭐
               Human-derived G protein-coupled e.g. in determining ligands and dysfunction of the protein.
Claim 6; Page 93-94; 97pp; Japanese
                                                          WPI; 2000-303747/26
                                                                                                           01-OCT-1998;
                                                                                                                           30-SEP-1999;
                                                                                                                                            13-APR-2000
                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                    genetic
                                                                                                                                                                                                                                                            Human G protein-coupled receptor hHI7T213 encoding cDNA SEQ
                                                                                                                                                                                                                                                                             18-AUG-2000 (first entry)
                                                                                                                                                                                                                                                                                             AAA29811;
                                                                                                                                                                                                                                                                                                              AAA29811 standard; cDNA; 969
                                                                                                                                                           WO200020455-A1
                                                                                           (TAKE )
                                                                                                                                                                                                                                                                                                                                                       1393
                                                                                                                                                                                                                                                                                                                                                                                        1333
                                                                                                                                                                                                                                                                                                                                                                                                       1493
                                                                                                                                                                                                                                                                                                                                                                                                                                        1433
                                                                                                                                                                                                                                                                                                                                                                                                                                                        1213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          973
                                                                                                                                                                                                                                            Q
                                                                      Ή,
                                                                                          TAKEDA
                                                                                                                                                                                                                                    protein-coupled receptor; hippocampus; diagnosis; screening; disease; cellular function regulation; ss.
                                                 AAY90761.
                                                                                                                                                                                                                                                                                                                                                                                                                                 GCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACAGGACTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCCTGGA 1432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCTTTGGCAT
                                                                                                                                                                                                                                                                                                                                                       CAGAAATG
                                                                                                                                                                                                                                                                                                                                                                       CAGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                       GAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCTTCTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCCATCATTTACTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCA
                                                                                                                                                                                                                                                                                                                                                                                        GAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCTTCTGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTTGCTTCCTCAGGAAACCCTTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGC
                                                                          Terao
                                                                                           CHEM IND
                                                                                                           98JP-00279535.
                                                                                                                           99WO-JP005366
                                                                                                                                                                           /*tag= a
/product=
                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                       1400
                                                                                                                                                                                                                                                                                                                                                                       1560
                                                                          ĸ,
                                                                                                                                                                                             .969
                                                                          Matsui
                                                                                           H
                                                                                                                                                                            ลื
                                                                                                                                                                                                                                                                                                              ВP
                                                                                                                                                                            protein-coupled receptor"
                                                                          H
                         protein and encoding nucleic acid, useful treatment of diseases associated with
                                                                                                                                                                                                                                                             ID NO:3.
                                                                                                                                                                                                                                                                                                                                                                                                                                        1492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                        1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1032
                                                                                                                                                                                                                                                                                                                                                                                                                        1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1212
                                                                                                                                                                                                                                                                                                                                                                                                        1552
                                                                                  밁
                                                                                                                                                                                                                                 र्
                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         X888888888888XX
δ
                밁
                             S
                                                밁
                                                                δ
                                                                                              S
                                                                                                                  문
                                                                                                                                 Ś
                                                                                                                                                    문
                                                                                                                                                                5
                                                                                                                                                                                    밁
                                                                                                                                                                                                   δ
                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                  श्
                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 37.0%; Sc
Best Local Similarity 100.0%; P
                                                                   1152
                                                                                                   1092
                                                                                                                                   1032
                                 1212
                                                                                  601
                                                                                                                   541
                                                  199
                                                                                                                                                    481
                                                                                                                                                                   972
                                                                                                                                                                                     421
                                                                                                                                                                                                     912
                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                     852
                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                       672
                                                                                                                                                                                                                                                                                                                                                                       612
                                                                                                                                                                                                                                                                     792
                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                      732
                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                        552
                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                     GTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGCTGCGAGTATCCTGGAGTGGATGTTC
```

```
The present sequence encodes a human-derived G protein-coupled protein designated hHI77213, which is isolated from the human hippocampus. The G protein-coupled receptor can be used for preventing, treating and diagnosing genetic diseases associated with G protein-coupled protein, and for regulating cellular functions. The protein-coupled protein, and treat disorders associated with G protein-coupled protein gene dysfunction. It can also be used to identify G protein-coupled protein ligands and generating antibodies and antisera against the protein. It is also useful in constructing recombinant receptor protein expression systems, developing receptor-binding assay systems and screening drug candidates, and can be used as a probe in the genetic diagnosis of G protein-coupled protein disorders
```

Sequence 969 BP; 171 A; 280 C; 250 G; 268 T; 0 U; 0 Other; Score 969; D; Pred. No. 0; DB 3; Length 969;

492 ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG GCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT GCGCTGACAGGAAACGCGGTTGTGCTCTGGGCTCCTGGGCTGCCCCATGCGCAGGAACGCCT ACTCCTTGCTACAAGCACGCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCCTTGTC ATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCATCTCCAAAAATCCTCAGTCCT ATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCATCTCCCAAAATCCTCAGTCCT ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCTTGTC ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG Mismatches 0; Indels 0 Gaps 791 671 60 300 240 731 180 120 611 0

GTGATGACCTTTCCCCTACTTTATAGGCCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGC GTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGC GTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGCTGCGGAGTATCCTGGAGTGGATGTTC 971 TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCCCAGATACCTGTCATCG TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCCCAGATACCTGTCATCG 420 360 851

TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACA TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACA 103: 540

480

AGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC AGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC ATCGCGTGGCTGGTTTTT ATCGCGTGGCTGTTTTTTATGTGTGGTTCTCTGTGGGTCCAGCCTGGTCCTGGTC 109: TTATGTGTGGTTCTCTGTGGGTCCAGCCTGGTCCTGCTGGTC 1151 600 660

TCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTCCTG AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTTCCATTTTTCCTG ACAGTGCTGGTCTTCCTCTGTGGCCTGCCCTTTGGCATTCAGTGGGCCCTGTTTTCC ACAGIGCIGGICTICCICCICIGIGGCCIGCCCITIGGCATICAGIGGGCCCIGITITCC 1211 1331 127 720 780

```
ARESULT 8
ABTO4876
ID ABTC
XX 11-C
XX 27
XX 11-C
XX 17
XX Huma
XX Huma
XX Homc
XX Hom
XX Ho
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           음 성 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               श्
                 Best Loc
Matches
                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                 27-NOV-2000; 2000US-0253404P.
12-DEC-2000; 2000US-0255366P.
20-FEB-2001; 2001US-0270286P.
20-FEB-2001; 2001US-0270286P.
06-APR-2001; 2001US-0282032P.
06-APR-2001; 2001US-0282356P.
06-APR-2001; 2001US-0282358P.
06-APR-2001; 2001US-0282358P.
14-MAY-2001; 2001US-0290917P.
31-JUL-2001; 2001US-0309208P.
                                                                                                     The present invention provides the protein and coding sequences of several human G-protein coupled receptors (GPCRs). These can be used in the identification of candidate compounds as receptor agonists or inverse agonists having applicability as therapeutic agents. The present sequent is a GPCR coding sequence of the invention
                                                                                                                                                                                                                             Novel endogenous and non-endogenous versions of G protein-coupled receptor useful for identification of candidate compounds as recej agonists or antagonists for use as therapeutic agents.
                                                                                                                                                                                                                                                                                                                                         Chen
                                                                                                                                                                                                   Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; G-protein coupled receptor; GPCR; hRUP28; hRUP29; hRUP30; hRUP31; hRUP32; hRUP33; hRUP35; hRUP36; hRUP37; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABT04875 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26-NOV-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200242461-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABT04875
                                                                                                                                                                                                                                                                                                                                                                      (AREN-)
                              Local Similarity
                                                                                                                                                                                                                                                                                           2002-566565/60.
DB; ABJ04077.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                   39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            G
                                                                                                                                                                                                                                                                                                                                                                      ARENA PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein
                                                                                                                                                                                                                                                                                                                                         Chu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGCAGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGCAGTGA 1460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG
                                                                                                                                                                                                  Page 74; 84pp; English.
                   Conservative
                                                                                                                                                                                                                                                                                                                                 ZL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001WO-US044386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            coupled receptor
                                                                                                                                                                                                                                                                                                                                      Dang
           37.0%; but
100.0%; Pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          entry)
                                                                          A;
                                                                                                                                                                                                                                                                                                                                        HT,
                                                                              280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       969
                                                                          Ç
                              Score 969;
Pred. No.
                                                                                                                                                                                                                                                                                                                                         Lowitz
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ВP
                                                                            250
                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          hRUP37 coding sequence
                                                                          ູດ
                                                                                                                                                                                                                                                                                                                                         ₹
                                                                          268 T;
                               0
                                                                                                                                                                                                                                                                                                                                         Pride
                                              DB 6;
                                                                          0 U;
                 0;
                                              Length 969;
                                                                            0 Other;
                 Indels
                 0
                                                                                                                                                                                                                                                receptor
                 Gaps
                                                                                                                         sequence
                                                                                                                                       inverse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      840
                 0
RESULT 9
ADO30080
ID ADO3
XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                 S
                                                                                                                                                  밁
                                                                                                                                                                           Ş
                                                                                                                                                                                                              문
                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                 몽
                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                            뭐
                 ADO30080
                                                                                                                                                                                   1392
                                                                                                                                                                                                                                              1332
                                                                                                                                                                                                                                                                                                           1272
                                                                                                                                                                                                                                                                                                                                                                                                                                  1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1092
                                                                                                                                                                                                                                                                                                                                                                      1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1032
                                                                                                                                                     901
                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG
                                                                                                                                                                                                                                                                           TCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCGTGGGCTCCTTTAGGCAG
                                                                                                                                                                                                                                                                                                                                        AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                  GTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCTCTTCCTTAGCGGCCACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGCAGTGA 1460
                                                                                                                                                                        GTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGATTCTCTGTGGATCCCGGGAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATCGCGTGGCTGTTTTTTATGTGTGGTTCTCTGTGGGTCCAGCCTGGTCCTGCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGTGACTTCCTGTTTTAGTGGTGCTGATTCTGTTTTGGTGTGAAACGTCAGATTTCATTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGCCTGTCCATCCTGGCCCATCTGGTACCACTGCCGCCCCAGATACCTGTCATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCCCAGATACCTGTCATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GIGATGACCTTTCCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTGATGACCTTTCCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTCTCCATCTACATCCTCAACCTGGTCGCCGGCCGACTTCCTTTCCTTAGCGGCCACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGCGCAAGGAACGCT
                   standard;
                                                                                                                                                       GTGGATGAAGGTGGAGGTGGCTTCCTCAGGAAACCCCTGGAGCTGTCGGGAAGCAGATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATCGCGTGGCTGGTTTTTTTATGTGTGGGTTCTGTGGGTCCAGCCTGGTCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACA
                   CDNA;
                   969
                   ₽₽
                                                                                                                                                                                       1451
                                                                                                                                                                                                                                                1391
                                                                                                                                                                                                                                                                              840
                                                                                                                                                                                                                                                                                                            1331
                                                                                                                                                                                                                                                                                                                                                                       1271
                                                                                                                                                                                                                                                                                                                                                                                                                                     1211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                           780
                                                                                                                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60
                                                                                                                                                        960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
```

```
CC of the invention; methods of treating, preventing or diagnosing diseases
CC associated with GPCRs of the invention; methods of screening for
CC compounds useful in the treatment of GPCR-related diseases; a transgenic
CC mouse comprising a GPCR gene of the invention; a mouse comprising a
CC mutation in a GPCR transgene or in an endogenous GPCR gene; cells derived
CC from the trasngenic mice; kits comprising several mice, each of which has
CC a mutation in a different GPCR gene of the invention; and kits comprising
CC probes which hybridise to GPCR gene of the invention; and kits comprising
CC comprising a GPCR nucleic acid. The GPCR polypeptides and vectors
CC comprising a GPCR nucleic acid. The GPCR nucleic acids and proteins may
CC be used in the diagnosis, treatment or prevention of a wide variety of
CC diseases including neurological disorders (e.g., Alzheimer's disease,
CC depression, diabetic neuropathy, Parkinson's disease or schizophrenia);
CC disorders of the adrenal gland; disorders (e.g., Alzheimer's disease,
CC (e.g., Crohn's disease, diarrhoea, food poisoning or irritable bowel
CC (syndrome); cardiovascular disorders (e.g., angina, cardiac arrhythmia or
CC (myocardial infarction); muscular disorders (e.g., autoimmune disorders (e.g.,
CC anaemia or leukaemia); immune disorders (e.g., autoimmune disorders (e.g.,
CC anaemia or soteoporosis); metabolic or nutritive disorders (e.g.,
CC obesity, enzyme deficiency-related diseases or vitamin deficiency-related
CC diseases); and disorders of the kidney, liver, lung, breast, ovary,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            G protein-coupled receptor; GPCR; drug screening; diagnosis; transgenic mouse; neurological disorder; adrenal gland disorder; colon disorder; intestinal disorder; cardiovascular disorder; muscular disorder; blood disorder; immune disorder; bone disorder; mutritive disorder; cancer; kidney disorder; metabolic disorder; nutritive disorder; cancer; kidney disorder; liver disorder; lung disorder; prosented disorder; cancer; skin disorder; uterus disorder; prostate disorder; testis disorder; skin disorder; stomach disorder; pancreas disorder; spleen disorder; thymus disorder; thyroid disorder; antiparkinsonian; antimanic; cytostatic; antiinflammatory; vasotropic; antianginal; antiarrhythmic; virucide; hepatotropic; antibacterial; antianemic; antiseborrhoetc; dermatological; antiulcer; antithyroid; antiallergic; anorectic; dermatological; antiulcer; antithyroid; antiallergic; anorectic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention relates to human and mouse G protein-coupled receptors (GPCRs) and nucleic acids encoding them. The invention also relates to sequences at least 90% identical to the GPCR proteins and nucleic acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Novel mammalian G protein coupled receptors, useful for identifying compounds that modulates diagnosing and treating disease condition associated with GPCR dysfunction e.g. autoimmune diseases, angina
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaitanaris GA, Dellain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09-SEP-2002;
09-APR-2003;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-SEP-2003; 2003WO-US028226.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13-MAY-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (PRIM-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        immunosuppressive; nephrotropic; gene therapy; GPCR modulator; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GPCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIMAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Parkinson's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 1182; 542pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MRGX3 polynucleotide,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2002US-0409303P.
2003US-0461329P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bergmann JE, Gragerov A, Hohmann J,
lwain KL, Pavlova MN, Vassilatis D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO:1182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  antidiabetic;
```

```
8
                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ព្ព័ព្ធព្រះ្ឋន្ន
                                                                      S
                                                                                                        밁
                                                                                                                               Ş
                                                                                                                                                                      문
                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                    뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Sim
Matches 969;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    uterus, prostate, testis, skin, stomach, pancreas, spleen, thymus and thyroid (e.g., cancers). The present sequence represents a GPCR-encoding nucleic acid of the invention. Note: The full sequence data for this patent did not form part of the printed specification; those sequences not shown were obtained in electronic format directly from WIFO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 969 BP; 171 A; 280 C; 250 G; 268 T; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                        1152
                                                                           1272
                                                                                                                                        1212
                                                                                                                                                                                                                                                                        1092
                                                                                                                                                                                                                                                                                                                                      1032
                                                                                                                                                                        661
                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                    972
                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGCTGCGGAGTATCCTGGAGTGGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCCCCCAGATACCTGTCATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCTCTTCCTTAGCGGCCACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCTTGTC
CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG 139:
                                                            TCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG 1331
                                                                                                                                                                                              ACAGTGCTGGTCTTCCTCCTCTGTGGGCCTGCCCTTTTGGCATTCAGTGGGCCCTGTTTTTCC
                                                                                                                                                                                                                                                                      AGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC 115
                                                                                                                                                                                                                                                                                                                                        ATCGCGTGGCTGGTTTTTTATGTGTGGTTCTCTGTGGGTCCAGCCTGGTCCTGCTGGTC 1091
                                                                                                                                                                                                                                                                                                                                                                                                                                    GTCATGTGTGTCCTGGGGCCCTGTCCCTGCTGCGGAGTATCCTGGAGTGGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGATGACCTTTCCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTGATGACCTTTCCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCCATCAGCACCGAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCCATCTCCAAAATCCTCAGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCCATCTCCAAAAATCCTCAGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCTTGTC
                                           TCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG
                                                                                                          AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTCCTG
                                                                                                                          AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTCCTG
                                                                                                                                                                         ACAGTGCTGCTCTCTCTGTGGCCTGCCCTTTGGCATTCAGTGGGCCCTGTTTTCC
                                                                                                                                                                                                                                                                                                                                                                                                      TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCCCCAGATACCTGTCATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          37.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 969;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                           1271
                                                                                                                                                                           720
                                                                                                                                                                                                                                                                                                                                                                                                        1031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               671
                                                                                                             780
                                                                                                                                                                                                           1211
                                                                                                                                                                                                                                                                                                        600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               611
                                                                                                                                                                                                                                           660
                                                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                             840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
```

```
ADO44603
ADO44603
ADO44603
ADO44603
ADO44603
ADO44603
ADO44603
ADO4603
                     В
                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                            Query Match
Best Local S
Matches 966
                                                                                                                                                                                                 The invention relates to a non-human mammal that carries a DNA integrated with a foreign HI7T213 or its mutant gene, or a part of it. The non-human animal is particularly a rat. Such gene shows phenotypes of e.g. cataract onset, transient skin rash and proliferation-promoting activity. The foreign HI7T213 gene is a gene that encodes a G protein-coupled receptor (GPCR) protein HI7T213. The protein, its encoded DNA and constructed transgenic animals are useful for clarifying pathological mechanism, developing therapeutic methods and screening preventives or remedies for related diseases e.g. cataract, cancer, and dermatitis. The present sequence represents a DNA encoding a human HI7T213 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HI7T213 protein, encoded DNA and transgenic animals for clarifying pathological mechanism, developing therapeutic methods and screening preventives or remedies for related diseases e.g. cataract, cancer, a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HI7T213; transgenic; G protein-coupled receptor; GPCR; ophthalmological; cytostatic; nephrotropic; antiinflammatory; dermatological; analgesic; vulnerary; neuroprotective; human; gene; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO2004039972-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADO44603 standard; DNA;
                                                                                                                                                                    Sequence 966
                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; SEQ ID NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kaisho
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29-OCT-2002; 2002JP-00314141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-OCT-2003; 2003WO-JP013781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13-MAY-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADO44603;
                                                                                              Local Sinhes 966;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2004-376191/35.
DB; ADO44602.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                961
                                                          492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HI7T213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ۲
                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TAKEDA CHEM
                                                          ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGCAGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGCAGTGA 1460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Watanabe T,
                                                                                                                                                                    BP; 170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1. .966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /*tag= a
/product= "HI7T213"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IND
                                                                                                              36.9%;
                                                                                                                                                                    A; 280 C; 249 G; 267 T; 0
                                                                                                                                                                                                                                                                                                                                                                                                            2; 161pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Yasuhara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BP
                                                                                              0,
                                                                                                              Score 966;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ĸ,
                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mori I,
                                                                                                                0,
                                                                                                                               BB
                                                                                                                               12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Taketomi
                                                                                              0;
                                                                                                                                                                    u;
                                                                                                                                 Length 966;
                                                                                                                                                                    0 Other;
                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ß
                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1451
                                                          551
                       60
                                                                                              0
밁
                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                         밁
                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                           á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            맑
                       12-FEB-2004
                                                           ADF70583;
                                                                                              ADF70583
                                                                                                                                                                                                                                                                                                                                                                           1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1152
                                                                                                                                                                                                                            1452
                                                                                                                                                                                                                                                                                                   1392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                        841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                         961
                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AICGCGIGGCIGGTITTITITAIGIGIGGGTCCTGGTGGGTCCAGCCIGGTCCTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACTCCTTGCTACAAGCAGACCCTGAGGTTCACGGGGCTGACGTGCATCGTTTCCCTTGTC
                                                                                                                                                                                                                                                                                    GTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTG
                                                                                                                                                                                                                                                                                                                                                               CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCGCTCTTAACAGCAGCCCAACCCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTTCCATTTTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTCATGTGTGTGCTGTGGGGCCCTGTTCCCTGCTGCGAGTATCCTGGAGTGGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCGCCCAGATACCTGTCATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCCATCAGCACCGAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCCATCAGCACCGAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATATGTTCGCCGTTACGCCTCATCATATCGGCCATCCCATCTCCAAAATCCTCAGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCTTTCCTTAGCGGCCACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCTTGTC
                                                                                              standard;
                                                                                                                                                                                         GAGCAG
                                                                                                                                                                                                                            GAGCAG
                                                                                                                                                                                                                                                                 GTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCCTGGAGCTGTCGGGAAGCAGATTG
                                                                                                                                                                                                                                                                                                                                        CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                  TCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACAGTGCTGGTCTTCCTCTGTGGCCTGCCCTTTGGCATTCAGTGGGCCCTGTTTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCTGTGGGTCCAGCCTGGTCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTCATGTGTGTGCTGCTGCGGGCCCTGTCCCTGCTGCGGAGTATCCTGGAGTGGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGCCTGTCCATCTGGCCCATCTGGTACCACTGCCGCCCCCAGATACCTGTCATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCCAAAAATCCTCAGTCCT
                       (first entry)
                                                                                                                                                                                                                              1457
                                                                                                                                                                                         966
                                                                                              DNA;
                                                                                                1683
                                                                                                ₽₽
                                                                                                                                                                                                                                                                                                                                                                             1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                        1331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                       1451
                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                    840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                   960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                     S
                                                                                                                                                    밁
                                                                                                                                                                                        S
                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 966; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This invention relates to a novel method of identifying ligands to an orphan receptor protein which comprises transforming cells with DNA encoding a fusion protein of the orphan receptor with a fluorescent protein, so that the fusion protein is expressed in the cells (or cell membranes isolated from them) and contacting the cells with the potential ligand to be tested. A suitable fluorescent protein for incorporation in the fusion protein is green fluorescent protein (GPP), for example GPP-1, wild-type GPP, GPPuv or Enhanced GPP (EGPP). The method is useful for the identification of ligands binding to an orphan receptor protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Transformation of cells with a fusion protein protein with a fluorescent protein useful for to the orphan receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22-FEB-2002; 2002JP-00045728.
23-JUL-2002; 2002JP-00213949.
11-OCT-2002; 2002JP-00298237.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ligand; orphan receptor protein; fusion protein; fluorescent protein; cell expression; green fluorescent protein; GFP; GFP-1; wild-type GFP; GFPuv; Enhanced GFP; EGFP; human; gene; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1683 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 4; SEQ ID NO 206; 594pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21-FEB-2003; 2003WO-JP001901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO2003071272-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Orphan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (TAKE ) TAKEDA CHEM IND LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2003-697654/66.
                                                                   301
                                                                                                                                                         241
                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                       672
                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                          612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   492
                                                                                                            792
                                                                                                                                                                                                 732
                                                                                                                                                                                                                                                                                                                                                                                                                     13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              receptor ligand-related human protein gene SeqID206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADF70481
                                                                                                                                                                                                                                                                                                                                                      GCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                            ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCCTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCCAATCAACGGACGTGAGGAG
                                                                                       GTGATGACCTTTCCCTACTTTATAGGCCTAAGCATCGAGCGCCATCAGCACCGAGCGC
                                                                                                                                                                               ATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCATCTCCAAAATCCTCCAGTCCT
                                                                                                                                                                                                                                                                   GTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCTTTCCTTAGCGGCCACATT
                                                                                                                                                                                                                                                                                                                                                                                                                       ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG
                        TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCCCCAGATACCTGTCATCG
                                                                                                                                                                                                                                        GTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCTCTTCCTTAGCGGCCACATT
                                                                                                                                                                                                                                                                                                                                  GCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                   GTGATGACCTTTCCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCCATCAGCACCGAGCGC
Fujii R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     36.9%; Score 966; DB 10; Length 1683; ilarity 100.0%; Pred. No. 0; Conservative 0; Mismatches n. Thank
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               402 A; 438 C; 401 G; 442 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Komatsu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ħ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Kawamata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of an orphan receptor identification of ligands
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ۲
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                   120
                           911
                                                                   360
                                                                                                            851
                                                                                                                                                         300
                                                                                                                                                                                                 791
                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                       731
                                                                                                                                                                                                                                                                                                                                                                            671
                                                                                                                                                                                                                                                                                                                                                                                                                                                              611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
    RESULT 12
AAA29812
ID AAA29
XX AAA29
XX IB-AU
XX Humar
XX Humar
XX Humar
XX Homo
XX Homo
XX Homo
XX Homo
XX Homo
XX IB-AU
XX IB-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           맑
                                                                                                                                                                                                                                                                                                                                                                                              Human; G protein-coupled receptor; hippocampus; diagnosis; screening, genetic disease; cellular function regulation; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAA29812 standard; cDNA; 969
                                                                     01-OCT-1998;
                                                                                                                                                                                                   WO200020455-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18-AUG-2000
                           (TAKE ) TAKEDA CHEM IND LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1032
                                                                                                                                                                                                                                                                                                                                                      sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  _
ດ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein-coupled receptor hHI7T213V encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGCAG 1457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTG 145:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGATTCTCTGTGGATCCCGGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC 1151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGCTGCGGAGTATCCTGGAGTGGATGTTC 971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCCCAGATACCTGTCATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCCTGGAGCTGTCGGGAAGCAGATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG 1331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACAGTGCTGGTCTTCCTCTGTGGCCTGTGCCCTTTTGGCATTCAGTGGGCCCTGTTTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCTGTGGGTCCAGCCTGGTCCTGGTC 1091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACA 1031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTCATGTGTGTCCTGGGGCCCTGTCCCTGCTGCGGAGTATCCTGGAGTGGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACAGTGCTGGTCTTCCTCTGTGGCCTGTCCCTTTTGGCATTCAGTGGGCCCTGTTTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATCGCGTGGCTGGTTTTTTTATGTGTGGGTTCTGTGGGTCCAGCCTGGTCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                     98JP-00279535
                                                                                                              99WO-JP005366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          966
                                                                                                                                                                                                                                            /product=
                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                                                                                                                                         .969
                                                                                                                                                                                                                                              តឺ
                                                                                                                                                                                                                                          protein-coupled receptor"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CDNA SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NO:4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               720
```

```
Query Match
Best Local S
Matches 968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present sequence encodes a human-derived G protein-coupled protein designated hHI/TZ13V, which is isolated from the human hippocampus. The G protein-coupled receptor can be used for preventing, treating and diagnosing genetic diseases associated with G protein-coupled protein, and for regulating cellular functions. The protein can be used to prevent and treat disorders associated with G protein-coupled protein gene dysfunction. It can also be used to identify G protein-coupled protein ligands and generating antibodies and antisera against the protein. It is also useful in constructing recombinant receptor protein expression systems, developing receptor-binding assay systems and screening drug candidates, and can be used as a probe in the genetic diagnosis of G protein-coupled protein disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human-derived G protein-coupled e.g. in determining ligands and dysfunction of the protein.
                                    1092
                                                                                                            1032
                                                                       541
                                                                                                                                                   481
                                                                                                                                                                                    972
                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                             912
                                                                                                                                                                                                                                                                                                                                       852
                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                               792
                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000-303747/26.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              968;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6; Page 94-95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        969
                           AGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC
                                                                                                                                                                      TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACA
                                                                                                                                                                                                                                            GTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGCTGCGGAGTATCCTGGAGTGGATGTTC
                                                                                                                                                                                                                                                                                                                        TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCCCAGATACCTGTCATCG
                                                                                                                                                                                                                                                                                                                                                                          GTGATGACCTTTCCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                 ATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCCAAAAATCCTCAGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATATGTTCGCCGTTACGCCTCATCATCATATCCGCCATCCCCAATCTCCCAAAATCCTCAGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCGCTGACAGGAAACGCGGTTGTGCTCTTGGGCTCCTGGGCTGCCCCATGCGCAGGAACGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'n
                                                                                                                                                                                                                                                                                                TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCCCCCAGATACCTGTCATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BP; 172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Terao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              35.1%;
99.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; 280 C; 249 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matsui
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 918;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein and encoding nucleic acid, useful treatment of diseases associated with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 u
••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ġ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 969;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                    1031
                                  1151
                                                                                                          1091
660
                                                                       600
                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                             971
                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                     911
                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        671
                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                             851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
```

밁

8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8

```
ARESULT 13
ADF29104
ID ADF29
XX ADF29
XX ADF29
XX ADF29
XX ADF29
XX Human
XX Human
XX Human
XX Homo
XX Glauc
XX Glauc
XX Glauc
XX Glauc
XX Homo
XX Glauc
XX 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
The invention relates to a human GPCR (G protein coupled receptor) designated R-14 (ADF29105), nucleic acids encoding it (ADF29104), and R-14 peptide antagonists (ADF29106-ADF29108). The invention also encompasses vectors and host cells comprising R-14 nucleic acids, and methods of screening for R-14 antagonists. The R-14 receptor is expressed in trabecular meshwork tissue, and is associated with a role in ocular outflow. Inhibition of the receptor results in a reduction of basal intracocular pressure, making the R-14 receptor a useful target for screening for ocular hypotensive drugs. The R-14 peptide antagonists are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; R-14; GPCR; G protein coupled receptor; trabecular meshwork tissue; ocular outflow; antagonist; ocular hypotensive; drug screening; elevated intraocular pressure;
                                                                                                                                                                                                                                                                                                               Claim
                                                                                                                                                                                                                                                                                                                                                                           glaucoma
                                                                                                                                                                                                                                                                                                                                                                                                 New substantially pure R-14 polypeptide, useful as drug targets for lowering intraocular pressure and for treating condition such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             27-MAR-2003; 2003WO-CA000444.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       glaucoma; ophthalmological; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human GPCR R-14-encoding cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 27-MAR-2002; 2002US-0367513P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO2003080659-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12-FEB-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2004-053019/05.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADF29105.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        THERATECHNOLOGIES INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGCAGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCTTTTGGCATTCAGTGGGCCCTGTTTTCC 1211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            standard; cDNA; 969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGCAGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG 1331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTTCCATTTTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACAGTGCTGGTCTTCCTCCTCTGTGGCCTGTCCCTTTTGGCATTCAGTGGGCCCTGTTTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTCCTG
                                                                                                                                                                                                                                                                                                               SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first
                                                                                                                                                                                                                                                                                                               Ħ
                                                                                                                                                                                                                                                                                                            NO 1; 85pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ß
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1460
                                                                                                                                                                                                                                                                                                            English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              780
```

```
중 유
                             밁
                                                      S
                                                                                    밁
                                                                                                               8
                                                                                                                                               В
                                                                                                                                                                     Ş
                                                                                                                                                                                                    문
                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         នន្តន្តន្តន្ត្
                                                                                                                                                                                                                                                                 дb
                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 useful for reducing intraocular pressure for the treatment of conditions associated with elevated intraocular pressure such as glaucoma and related conditions. The R-14 receptor, and host cells expressing an R-14 polynucleotide, may be used in screening for R-14 receptor antagonists. The present sequence is related to the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 969
                                                                                                                                                                                                                                                                                               1092
                                                                                                                                                                             1212
                                                                                                                                                                                                                                                                                                                                                           1032
                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                    972
                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              966;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                            ATCGCGTGGCTGGTTTTTTTATGTGTGGGTTCTCTGTGGGGTCCAGCCTGGTCCTGGTC 1091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTGATGACCTTTCCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCGCTGACAGGAAACGCGGTTGTGCTCTGGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCCAATCAACGGACGTGAGGAG
                                                                                                                                                                      AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTTCCTG 1271
                                                                                                                                                                                                                                                                                                                                                                                                        TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTAAACGTCAGATTTCATTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTCATGTGTGTCCTGCTCTGGGGCCCCTGTCCCTGCGGGGTATCCTGGAGTGGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTCATGTGTGTGCTCTGGGCCCTGTCCCTGCTGCGGAGTATCCTGGAGTGGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGCCTGTCCATCCTGTGGCCCATCTGGTACCACCTGCCGCCCCAGATACCTGTCATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCATCTCCAAAATCCTCAGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCTCCTTAGCGGCCACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACTCCTTGCTACAAGCAGCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG
GTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCCTGGAGCTGTCGGGAAGCAGATTG
                                              CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG
                                                                                      TCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG
                                                                                                       TCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG
                                                                                                                                                                                                                                      ACAGTGCTGGTCTTCCTCTGTGGCCTGCCCTTTGGCATTCAGTGGGCCCTGTTTTCC 1211
                                                                                                                                                                                                                                                                                                AGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC 1151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCCCCAGATACCTGTCATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGTCAMATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG
                                                                                                                                                 AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                        TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACA
                                                                                                                                                                                                                                                                     AGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BP; 171 A; 280 C; 250 G; 268 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         35.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 916;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 969;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                   1331
                                                                                                                                                                                                                                                                                                                                                                                                                    1031
                                                                                      840
                                                                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                 780
                                                                                                                                                                                                           720
                                                                                                                                                                                                                                                                                                                              600
                                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60
                             900
                                                                                                                                                                                                                                                                     660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
```

```
RESULT 14
AD044605
ID 44605
AD044605
AD04605
                                                     밁
                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
Ş
                                                                                                                                                                         Query Match
Best Local Similarity
Matches 965; Conserv
                                                                                                                                                                                                                                                                                                                                          The invention relates to a non-human mammal that carries a DNA integrated with a foreign HI77213 or its mutant gene, or a part of it. The non-human animal is particularly a rat. Such gene shows phenotypes of e.g. cataract onset, transient skin rash and proliferation-promoting activity. The foreign HI77213 gene is a gene that encodes a G protein-coupled receptor (GPCR) protein HI77213. The protein, its encoded DNA and constructed transgenic animals are useful for clarifying pathological mechanism, developing therapeutic methods and screening preventives or remedies for related diseases e.g. cataract, cancer, and dermatitis. The present sequence represents a DNA encoding a human HI77213 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HI7T213 protein, encoded DNA and transgenic animals for clarifying pathological mechanism, developing therapeutic methods and screening preventives or remedies for related diseases e.g. cataract, cancer, dermatitis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HI7T213; transgenic; G protein-coupled receptor; GPCR; ophthalmological; cytostatic; nephrotropic; antiinflammatory; dermatological; analgesic; vulnerary; neuroprotective; human; gene; ds.
                                                                                                                                                                                                                                                                                          Sequence 966 BP; 171 A; 280 C; 248 G; 267 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human HI7T213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADO44605 standard; DNA; 966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure; SEQ ID NO 4; 161pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P-PSDB; ADO44604.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kaisho
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29-OCT-2002; 2002JP-00314141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28-OCT-2003; 2003WO-JP013781.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        13-MAY-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO2004039972-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29-JUL-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (TAKE )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1452
     552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2004-376191/35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ۲,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TAKEDA CHEM IND
                                                                                            ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGCAGT 1458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGCAGT 967
                                                           ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Watanabe
                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1.
/*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /product= "HI7T213"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŗ,
                                                                                                                                                                                                    35.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Yasuhara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ВP
                                                                                                                                                                         0;
                                                                                                                                                                                                    Score 915;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA.
                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ۲
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mori
                                                                                                                                                                                                                                 BB
                                                                                                                                                                                                                                 12;
                                                                                                                                                                         ۲.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Taketomi
                                                                                                                                                                                                                              Length 966;
                                                                                                                                                                            Indels
                                                                                                                                                                            ٥,
        611
                                                              60
                                                                                                                                                                            0
```

```
RESULT 15
AAA70342
ID AAA70
XX
AC AAA70
XX
DT 19-DE
XX
DE Human
                                                                                                                                                                                음 성
                                                                                                                                                            S
                                                                                                                                                                                                                                  Вb
                                                                                                                                                                                                                                                           중 유
                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                             음 성 음
                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  중 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            음 중
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                          AAA70342 standard; cDNA;
Human novel G-protein coupled receptor #1 coding sequence
                          19-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                        1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1092
                                                                                                                                                                                                                                                                                                                     1272
                                                                                                                                                                                                                                                                                                                                                                      1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1032
                                                                                                                                                                                                                                            841
                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                               661
                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                        961
                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCCCAGATACCTGTCATCG
                                                                                                                                                                                                                 GTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTG 1451
                                                                                                                                                                                                                                                                                                         TCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG
                                                                                                                                                                                                                                                                                                                                                            AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTTCCATTTTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                              ACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCTTTGGCATTCAGTGGGCCCTGTTTTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGATTCTCTGTGGATCCCGGGAGGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATCGCGTGGCTGCTTTTTTATGTGTGGTTCTCTGTGGGTCCAGCCTGGTCCTGCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATCGCGTGGCTGGTTTTTTTATGTGTGGGTTCTCTGTGGGTCCAGCCTGGTCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGTGACTTCCTGTTTAGTGGTGCTAATTCTGTTTGGTGTGAAACGTCAGATTTCATTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGTGACTTCCTGTTTTAGTGGTGCTGATTCTGTTTTGGTGTGAAACGTCAGATTTCATTACA 1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTGATGACCTTTCCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCATCTCCAAAATCCTCAGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ĠĊĠĊŢĠĂĊĂĠĠĂĂĂĊĠĊĠĠŢŢĠŢĠĊŢĊĊŢĠĠĊŢĊĊŢĠĠĠĊŢĠĊĊĠĊAŢĠĊĠĊĀĠĠĀAŖĊĠĊŢ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCTTGTC
                                                                                                                                                                 GAGCAG
                                                                                                                                                                                                                                                                    CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                 ACAGTGCTGGTCTTCCTCTCTGTGGCCCTTTGGCATTCAGTGGGCCCTGTTTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCCATCTCCAAAATCCTCAGTCCT
                                                                                                                                                                                                                                                                                                                                                AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTCCTG
                         (first entry)
                                                                                                                                                                 1457
                                                                                                                                        966
                                                                           969
                                                                           ВP
                                                                                                                                                                                                                                                                    1391
                                                                                                                                                                                                                                                                                                                     1331
                                                                                                                                                                                                                                                                                                                                                                        1271
                                                                                                                                                                                                                                                                                                                                                                                                                        1211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                               720
                                                                                                                                                                                                                                                                                                                                                                                                                                                   660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               971
                                                                                                                                                                                                                                                                                             840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        671
                                                                                                                                                                                           960
                                                                                                                                                                                                                                            900
                                                                                                                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                              ঠ
                                                            밁
                                                                                δ
                                                                                                       밁
                                                                                                                                 S
                                                                                                                                                              밁
                                                                                                                                                                                  δ
                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 917; Conserv
                                                                                                                                                                                                                                                                                                                                                                                          The present sequence is the coding sequence for a novel human G-protein coupled receptor (NGPCR). These proteins are involved in signal transduction pathways in many cases. The protein contains seven transmembrane domains, and is expressed in human testis, mammary gland and salivary gland tissue. The gene, its protein, agonists, antagonists and antibodies can be used to diagnose and treat diseases associated with the inappropriate expression of recording for drugs which can be used in the same manner, and for elucidating the function of the protein
                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New polynucleotides encoding novel G-protein coupled receptors useful diagnosis, drug screening, clinical trial monitoring and for the treatment of physiological or behavioral disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             04-JAN-1999;
14-JAN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; novel G-protein coupled receptor; signal transduction; disease diagnosis; drug screening; disease therapy; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Nehls M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    04-JAN-2000; 2000WO-US000052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; Page 52-53; 61pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200040724-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (LEXI-) LEXICON GENETICS INC
                                                                                                               181
                                                                                                                                       672
                                                                                                                                                                                                                                                                                             492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000-465986/40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens
              301
                                   792
                                                            241
                                                                                                                                                                 121
                                                                                                                                                                                          612
                                                                                                                                                                                                                                           552
                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                    <u>ب</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAB14846.
                                                                                                                                                                                                                               ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCTTGTC
                                                                                                                                                                                                                                                                                     ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG
                              GTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGC 851
                                                                            ATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCCATCTCCAAAATCCTCAGTCCT
                                                                                                                             GTCTCCATCTACATCCTCAACCTGGTCGCCGGCCGACTTCCTTTCCTTAGCGGCCACATT
                                                                                                                                                                             GCGCTGACAGGAAACGCGGTTGTGCCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                                                                  ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCTTGTC
                                                                                                                                                                                                                                                                    ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG
                                                                                                                                                                                                                                                                                                                                                                      969 BP; 172 A; 282 C; 249 G; 266 T; 0 U; 0 Other;
             GTGATGACCTTTCCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGC
                                                                                                               GCGCTGACAGGAAACGCGGTTGTGCTCTGGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                              ATACGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCATCTCCAAAATCCTCAGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Wattler F;
                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99US-0114666P.
99US-0115828P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
1. .969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /product=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /*tag=
                                                                                                                                                                                                                                                                                                                                33.18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "novel
                                                                                                                                                                                                                                                                                                                   Score 867; DB 3; Pred. No. 1e-313; 0; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            G-protein coupled
                                                                                                                                                                                                                                                                                                                       1:
                                                                                                                                                                                                                                                                                                                                            Length 969;
                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              receptor
                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                       Gaps
```

240 731

300

360

180 671 120 611 60

1392 GTGGATGAAGGTGGAGGG 1409 	1332 CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG 1391	1272 TCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG 1331	1212 AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTCCTG 1271	1152 ACAGTGCTGGTCTTCCTCCTCTGTGGCCTGTTTGGCATTCAGTGGGCCCTGTTTTCC 1211	1092 AGGATTCTCTGTGGATCCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC 1151	1032 ATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCTGTGGGTCCAGCCTGGTCCTGCTGGTC 1091	972 TGIGACTICCTGTITAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACA 1031	912 GTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGCTGCGGAGTATCCTGGAGTGGATGTTC 971	361 TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCCCAGATACCTGTCATCG 420
----------------------------------	--	--	--	---	---	--	---	--	---

밁

음 성

음 성

음 성

Search completed: October 29, 2004, 19:33:33 Job time: 1232 secs

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Minimum
Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Post-processing: Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Total number of hits satisfying
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Word size
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                     a a
                                                                               000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
        222222222111111109
2222222211151111109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No. score grea and is der
                                                                                                                                                                                                                                                                                                                                                                                                                                          Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       is derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      seq length: 0
seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      No. is the number of results predicted by chance to have a greater than or equal to the score of the result being printed, s derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-867-570-1
2618
1 aacaattgccgcga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9.2.4.5.5
                                                                                                                                                                                                                                                                                                                                                                                                                                          Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OLIGO_NUC
Gapop_60.0 , Gapext 60.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          October 29, 2004, 18:52:43 ; Search time 215 Seconds (without alignments) 8655.094 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  824507 seqs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Issued_Patents NA:*

1: /cgn2_6/ptodata/1/ina/5A_COMB.seq:*

2: /cgn2_6/ptodata/1/ina/5B_COMB.seq:*

3: /cgn2_6/ptodata/1/ina/6A_COMB.seq:*

4: /cgn2_6/ptodata/1/ina/6B_COMB.seq:*

5: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*

6: /cgn2_6/ptodata/1/ina/backfiles1.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20
      4.6
3.7
1.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              aacaattgccgcgaattcgg.....
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Copyright
    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GenCore version 5.1.6 (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                           멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    355394441 residues
 4 US-09-254-227A-6
4 US-09-254-227A-4
4 US-09-495-050A-164
4 US-09-495-050A-164
4 US-09-254-227A-10
4 US-09-254-227A-12
4 US-09-254-227A-12
4 US-09-254-227A-12
5 US-09-254-227A-13
8 US-09-218-686-1
8 US-09-18-686-1
8 US-09-18-686-1
9 US-09-149-476-179
9 US-09-149-476-179
9 US-09-621-976-18390
9 US-09-621-976-18390
9 US-09-621-976-18391
9 US-09-631-928-112
9 US-09-631-122
9 US-09-631-122
9 US-09-631-123-112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      chosen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              . gaaaaaaaaaaaaaaaaaa
Sequence 6, Appli
Sequence 1, Appli
Sequence 164, Appli
Sequence 130, App
Sequence 10, Appli
Sequence 11, Appli
Sequence 12, Appli
Sequence 12, Appli
Sequence 1, Appli
Sequence 2, Appli
Sequence 2, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 11, Appli
Sequence 112, App
Sequence 247, App
                                                                                                                                                                                                                                                                                                                                                                                                                                          Description
                           S
                                                                밁
                                                                                          S
                                                                                                                            맑
                                                                                                                                                  5
                                                                                                                                                                                         밁
                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                 몆
                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 1
US-09-254-227A-6
                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                254
                                                                                                                               194
                                                                                                                                                            589
                                                                                                                                                                                           134
                                                                                                                                                                                                                        625
                                                                                                                                                                                                                                                                        565 AGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCCTTGTCGCGCTGACAGGAA
                                                                                                                                                                                                                                                                                                                                 505 TCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGAGACTCCTTGCTACA
```

45	C 44	43	42	41	40	39	38	37	36	35	34	ω u	32	31	30	29	28
23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
0.9	0.9	0.9	•	0.9	•		0.9	•	0.9	0.9	٠		0.9	0.9	٠	٠	0.9
1425	1364	1364	1353	1353	1350	1126	1126	1126	1100	1092	1092	1092	947	761	761	651	651
μ	4.	4	4	w	4.	4	4	4	۲	4	4	4	4	4	4	4.	4.
US-08-464-148-1	US-09-828-995B-33	US-09-828-995B-31	US-09-653-285-6	US-08-913-014A-6	US-09-149-476-248	US-10-115-123-89	US-10-012-542-89	US-09-461-325-89	US-08-820-051-3	US-10-115-123-86	US-10-012-542-86	US-09-461-325-86	US-09-673-395A-8	US-10-170-097-71	US-09-641-638-71	US-10-170-097-72	US-09-641-638-72
Sequence 1, Appli	Sequence 33, Appl	Sequence 31, Appl	Sequence 6, Appli	Sequence 6, Appli	Sequence 248, App	Sequence 89, Appl	Sequence 89, Appl	Sequence 89, Appl	Sequence 3, Appli	Sequence 86, Appl	Sequence 86, Appl	Sequence 86, Appl	Sequence 8, Appli	Sequence 71, Appl	Sequence 71, Appl	•	Sequence 72, Appl

ALIGNMENTS

## SOFTWARE: PatentIn vers SEQ ID NO 6 LENGTH: 969 TYPE: DNA ORGANISM: Homo sapiens US-09-254-227A-6 Sequence 6, Application US/09254227A Patent No. 6696257 GENERAL INFORMATION: APPLICANT: Ahmad, Sultan APPLICANT: Banville, Denis APPLICANT: Fortin, Yves APPLICANT: Fortin, Yves APPLICANT: O'Donnell, Dajan APPLICANT: O'Donnell, Dajan APPLICANT: Shi-Hsiang, Shen TITLE OF INVENTION: G Protein-Coupled Receptors from the FILE REFERENCE: 81023/268117 CURRENT APPLICATION NUMBER: US/09/254,227A CURRENT FILING DATE: 1999-03-03 NUMBER OF SEQ ID NOS: 22 NUMBER OF SEQ ID NOS: 22 PatentIn version 3.0 21.2%; Score 554; DB 4; 1 Pred. No. 3.9e-232; 0; Mismatches 5; Length 969; Rat and

804;

Conservative

5; Indels

0

Gaps

74

TACGCCTCATCAATATCAGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTC

TACGCCTCATCAATATCCGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTC TCCTCAACCTGGTCGCCGGCCGACTTCCTCCTTAGCGGCCACATTATATGTTCGCCGT

CCTACTTTATAGGCCTAAGCATGCTGAACGCCATCAGCACCGAGCGCTGCCTGTCCATCC CCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCC

864 313 804 253

TCCTCAACCTGGTCGCGGCCGACTTCCTTCCTTAGCGGCCACATTATATGTTCGCCGT

ACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACA AGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAA

133

624 73

193 684 14

TCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACA

```
SOFTWARE: Patentin verses SEQ ID NO 4
LENGTH: 969
TYPE: DNA
ORGANISM: Homo sapiens
US-09-254-227A-4
밁
                   S
                                                         뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 2
US-09-254-227A-4
                                                                                      Ś
                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 596; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 4, Application US/09254227A Patent No. 6696257
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                      APPLICANT: Ahmad, Sultan
APPLICANT: Banville, Denis
APPLICANT: Benville, Denis
APPLICANT: Fortin, Yves
APPLICANT: Lembo, Paola
APPLICANT: O'Donnell, Dajan
APPLICANT: Shi-Hsiang, Shen
TITLE OF INVENTION: G Protein-Coupled Receptors from the Rat and Human
FILE REFERENCE: 81823/268117
CURRENT APPLICATION NUMBER: US/09/254,227A
CURRENT FILING DATE: 1999-03-03
NUMBER OF SEQ ID NOS: 22
SOFTWARE: Patentin version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               374
                                                                                                                                              749 CCTCATCAATATCCGCCATCCCAATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCAGTGCCAACCCCATCATTTACTTCTTC 1313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGG 1044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGTGGCCCATCTGGTACCACTGCCGCCGCCCCAGATACCTGTCATCGGTCATGTGTGTCC 924
                  CTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTG
                                                                                                                           CCTCATCAATATCCGCCATCCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCAGTGCCAACCCCATCATTTACTTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCCTCCTCTGTGGCCCTTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGG 1224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITITIA GIGIGATICICIGIGGGICCAGCCIGGICCIGGICCAGAITCICIGIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTAGTGGTGCTGATTCTGTTCGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGCTCTGGGCCCTGTCCCTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGT
 GCCCATCTGGTACCACTGCCGCCGCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCT
                                                                                                                                                                                       Conservative
                                                                                                                                                                                                   20.9%;
                                                                                                                                                                                      Score 546; DB 4; ]
Pred. No. 1.2e-228;
O; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     822
                                                                                                                                                                                                                   Length 969;
                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1164
                                                           377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  984
                                                                                           868
                                                                                                                           317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           613
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 닭
                                                                                             S
                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 3
US-09-495-050A-164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                      S
                                                                   문
                                                                                                                                                                       δ
                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                          ; FEATURE:
; NAME/KEY: misc feature
; OTHER INFORMATION: Incyte ID No. 6492505 1909132CT1
US-09-495-050A-164
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/09/495,050A
CURRENT FILING DATE: 2000-01-31
PRIOR APPLICATION NUMBER: 60/118,318
PRIOR FILING DATE: February 1, 1999
NUMBER OF SEQ ID NOS: 305
SOFTWARE: PERL Program
SEQ ID NO 164
LENGTH: 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
APPLICANT: Roopa, Reddy
APPLICANT: Gougler, Karl, J.
APPLICANT: Au-Young, Janice
TITLE OF INVENTION: COMPOSITION FOR DETECTION OF GENES ENCODING MEMBRANE-ASSOCIATED
FILE REFERENCE: PA-0013 US
                                                                                                                                                                                                                                                                                     Best Local Similarity Matches 291; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 164, Application US/09495050A Patent No. 6492505
                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  929
                                                                                                                                                                822 AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCCATCTGGTAC 881
                                                                                                                                                                                                                                 762 CGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCCTACTTTATAGGCCTA 821
181
                                                                                     61
                                                                                                                                                                                                                -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGGGCCCTGTCCCTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAG
                             CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT 1001
                                                                                                                                                                                                                CGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCCTACTTTATAGGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCTCTGTGGCCTGCCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTG 1228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCT 1168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAG 1288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITATGTGTGGTTCTCTGTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTTATGTGTGGTTCTCTGTGGGTCCAGCCTGGTCCTGCTCAGGATTCTCTGTGGATC 1108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTT 1048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCA 1345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCTCTGTGGCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTG 737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGTGCTAATTCTGTTTGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTT
                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                     11.1%; Score 291; DB 4; Lo
100.0%; Pred. No. 2.4e-117;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                        DB 4; Length 291
                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   497
                                                                        180
                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            557
                                                                                                                                                                                                                  60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       617
 240
```

PF

1002 GTTTGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTT

TTA 1052

```
ঠ
                                                                  밁
                                                                                                 S
                                                                                                                                      밁
                                                                                                                                                                                                           吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 4
US-09-016-434-330
                                                                                                                                                                                                                                                                                                                                                       US-09-016-434-330
                                                                                                                                                                                                                                                                                 Matches 275; Conservative
                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 330, Application US/09016434 Patent No. 6500938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
APPLICANT: Jeffrey J. Sellhamer
APPLICANT: Jeffrey J. Sellhamer
TITLE OF INVENTION: COMPOSITION FOR THE DETECTION OF SIGNALING
TITLE OF INVENTION: PATHWAY GENE EXPRESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Zeller, Karen J.
REGISTRATION NUMBER: 37,071
REFERENCE/DOCKST NUMBER: PA-0
TELECOMMUNICATION INFORMATION:
TELECHONE: (650) 855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEPHONE: (650) 855-05:
TELEPAX: (650) 845-4166
INFORMATION FOR SEQ ID NO: 3
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY: LINEL.
IMMEDIATE SOURCE:
CONNTUTO1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION: PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: FC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOPTWARE: Word Perfect 6.1 for Windows/MS-DOS CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/016,434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES: 1:
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                      CLONE: 1909132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: HEREWITH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: PALO ALTO
STATE: CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ENGTH:
                               942
                                                                   121
                                                                                                      882
                                                                                                                                                                        822 AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC 881
                                                                                                                                                                                                                                                762 CGCCATCCCAACATCTCAAAATCCTCAGTCCTGTGATGACCTTTCCCCTACTTTATAGGCCTA 821
                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             94304
                                                                                                                                                                                                                                                                                                                                                                                                                                                      nucleic acid
                                                                                                      CACTGCCGCCGCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCC 941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTTTGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTA 291
                             CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT 1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B: INCYTE PHARMACEUTICALS,
3174 PORTER DRIVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          275 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           USA
                                                                                                                                                                                                                                                                                                                                                                                                                                      single
                                                                                                                                                                                                                                                                          10.5%; but
100.0%; Pr/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1490
                                                                                                                                                                                                                                                                            Score 275; DB 4; ...; Pred. No. 2.3e-110;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PA-0002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SD
                                                                                                                                                                                                                                                                                                                  Length 275;
                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                 0
                                                                   180
240
                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                 0
```

```
; SOFTWARE: PatentIn vers
; SEQ ID NO 10
; LENGTH: 969
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-254-227A-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: PatentIn vers
SEQ ID NO 8
LENGTH: 969
TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                             RESULT 6
US-09-254-227A-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-254-227A-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: Ahmad, SI
APPLICANT: Banville
APPLICANT: Fortin,
APPLICANT: Lembo, R
                                                                                                                                                                                                                                                                                                                              Sequence 10, Application US/09254227A Patent No. 6696257 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 8, Application US/09254227A Patent No. 6696257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches 229;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                       APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Ahmad, Sultan
APPLICANT: Banville, Denis
APPLICANT: Fortin, Yves
APPLICANT: Lembo, Paola
APPLICANT: Lembo, Paola
APPLICANT: O'Donnell, Dajan
APPLICANT: Shi-Hsiang, Shen
TITLE OF INVENTION: G Protein-Coupled Receptors from the Rat and Human
FILE REFERENCE: 81823/268117
CURRENT FILING DATE: 1999-03-03
CURRENT FILING DATE: 1999-03-03
NUMBER OF SEQ ID NOS: 22
NUMBER OF SEQ ID NOS: 22
                                                                                                                                   APPLICANT: Shi-Hsiang, Shen
TITLE OF INVENTION: G Protein-Coupled Receptors from the Rat and Human
FILE REFERENCE: 81823/268117
CURRENT APPLICATION NUMBER: US/09/254,227A
CURRENT FILING DATE: 1999-03-03
                                                                                                                 NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1002 GTTTGGTGAAACGTCAGATTTCATTACAATCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1291 CCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1231 AAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTTTGGTGTGAAACGTCAGATTTCATTACAATCGC 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGA 1460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGTCTTATTTTGTCATGTGCATCTAGTTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCTTCCTCAGGAAACCCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGT
                                                                                                                                                                                                                                 Fortin, Yves
Lembo, Paola
O'Donnell, Dajan
                                                                                                 Patentin version 3.0
                                                                                                                                                                                                                                                                         Ahmad, Sultan
Banville, Denis
Fortin, Yves
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 179; DB 4;
Pred. No. 1.7e-68;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               799
```

```
; SOFTWARE: PatentIn vers
; SEQ ID NO 14
; LENGTH: 969
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-254-227A-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILE REFERENCE: 81823/268117
FILE REFERENCE: 81823/268117
CURRENT APPLICATION NUMBER: US/09/254,227A
CURRENT FILING DATE: 199-03-03
NUMBER OF SEQ ID NOS: 22
SOFTWARE: PatentIn version 3.0
SEQ ID NO 12
LENGTH: 969
TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 7
US-09-254-227A-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                       US-09-254-227A-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-254-227A-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 100.
Matches 97; Conservative
                                                                                                                                                                                                                                                                                                                                                                 Sequence 14, Application US/09254227A Patent No. 6696257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 12, Application US/09254227A
Patent No. 6696257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches 120;
Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                                                                                                                         APPLICANT: Fortin, Yves
APPLICANT: Lembo, Paola
APPLICANT: Lembo, Paola
APPLICANT: O'Donnell, Dajan
APPLICANT: Shi-Hsiang, Shen
TITLE OF INVENTION: G Protein-Coupled Receptors from the Rat and
FILE REFERENCE: 81823/268117
CURRENT APPLICATION NUMBER: US/09/254,227A
CURRENT FILING DATE: 1999-03-03
NUMBER OF SEQ ID NOS: 22
                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1347 AACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACA 1383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1287 AGTGCCAACCCCATCATTTACTTCCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAG 1346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1323 TTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGAC 1382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1263 ATTITICCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCC 1322
                                                                                                                                                                                                                                                                                                                                                  INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             856 AACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACA 892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGAC 891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Banville, Denis
Fortin, Yves
                                                                                                                            PatentIn version 3.0
                                                                                                                                                                                                                                                                                       Banville, Denis
Fortin, Yves
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Shi-Hsiang, Shen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fortin, Yves
Lembo, Paola
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  O'Donnell, Dajan
                                                                                                                                                                                                                                                                                                                               Ahmad
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ahmad,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ilarity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sultan
                                                                                                                                                                                                                                                                                                                             Sultan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3.7%; Score 97; DB 4; Length 969; 100.0%; Pred. No. 1e-32; ative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              G Protein-Coupled Receptors from the Rat and Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4.6%; Score 120; DB 4; Length 969; 100.0%; Pred. No. 9.5e-43;
3.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
Score 80;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
DB 4;
Length 969;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
```

```
GENERAL INFORMATION:
APPLICANT: HUARY, TIM
APPLICANT: HUARY, TIM
FILE REFERENCE: UMO1523
CURRENT APPLICATION NUMBER: US/09/497,855A
CURRENT FILING DATE: 2000-02-04
PRIOR APPLICATION NUMBER: 60/120,592
PRIOR APPLICATION NUMBER: 60/118,760
PRIOR PILING DATE: 1999-02-18
PRIOR PILING DATE: 1999-02-05
NUMBER OF SEQ ID NOS: 54
SOFTWARE: DEFOIL NOS: 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 9
US-09-497-855A-32/c
; Sequence 32, Application US/09497855A
; Patent No. 6605432
; Patent No. 6605432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; TYPE: DNA; Homo sapiens; US-09-497-855A-32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 10
US-09-918-686-1/c
                                                                           US-09-918-686-1
                                                                                                                                                                                                                             SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 100.0%;
Matches 31; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: Pa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1, Application US/09918686 Patent No. 6475739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity 100.0%;
Matches 80; Conservative (
Query Match 1.1%; Score 30; DB Best Local Similarity 100.0%; Pred. No. 0.0 Matches 30; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                                                                                                                 FILE REFERENCE: 240083.515
CURRENT APPLICATION NUMBER: US/09/918,686
CURRENT FILING DATE: 2001-07-30
NUMBER OF SEQ ID NOS: 105
                                                                                                                                                                                                                                                                                                                                          APPLICANT: Proll, Sean
APPLICANT: Paeper, Bryan
APPLICANT: Staehling-Hampton, Karen
TITLE OF INVENTION: METHODS FOR IDENTIFYING
TITLE OF INVENTION: GENOMIC DELETIONS
                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Brunkow, Mary
                                                                                           NAME/KEY: misc_feature
LOCATION: 7043, 8369, 8401
OTHER INFORMATION: n = A,T,C or
                                                                                                                                                                                        LENGTH: 92139
TYPE: DNA
                                                                                                                                                      FEATURE:
                                                                                                                                                                      ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ENGTH: 118067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97535 GATTGGAAGCTTCCTGAGGCCTCCCCAGAAG 97505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   127 GATTGGAAGCTTCCTGAGGCCTCCCCAGAAG 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AACCTGAAGCTGGTTCTCCA 1366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAG 1346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AACCTGAAGCTGGTTCTCCA 875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.2%; Score 31; DB 4; L
100.0%; Pred. No. 0.00051;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No. 2.7e-25;
, Mismatches 0;
                                                                                              G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                 DB 4; 1
. 0.0014;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FOR DETECTING DNA METHYLATION
                                   Length 92139;
 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 118067;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
 ٥,
```

```
; Sequence 2, Application US/09346510B
; Batent NO. 6281014
; GENERAL INFORMATION:
; APPLICANT: O'Brien, Timothy J.
; APPLICANT: Wang, Yinxiang
; TITLE OF INVENTION: SH3-Containing Protein, DN
; FILE REFERENCE: D6221CIP
; CURRENT FILING DATE: 1999-07-01
; PRIOR APPLICATION NUMBER: 08/871,732
                                                                                                                                                                                     RESULT 12
US-09-346-510B-2
                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-871-732A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                               JS-08-871-732A-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 2, Application US/08871732A
Patent No. 6140074
                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 26; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: LINKAR MOLECULE TYPE: OTH
                                                                                                                                                                                                                                                                                                                                                                                                                                  ANTI-SENSE: NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 735 BASE PAIRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM: MEDIUM TYPE: DISKETT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: NOVEL SH3 PROTEIN, C
TITLE OF INVENTION: CELLS, VECTORS AND E
TITLE OF INVENTION: PROTEIN, ANTIBODIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION: TELEPHONE: 713-682-1213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
ATTORNEY/AGENT INFORMATION:
ANAME: MCGREGOR, MARTIN L.
REGISTRATION NUMBER: 29,339
REFERENCE/DOCKET NUMBER: 1-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: O'BRIEN, TIMOTHY J. APPLICANT: WANG, YIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY: UNITED STATES OF AMERICA ZIP: 77092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM COMPATIBLE OPERATING SYSTEM: MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE:
                                                                                                                                                                                                                                                                                                   2593 GTGCTGGAAAAAAAAAAAAAAAAAAAAA 2618
                                                                                                                                                                                                                                                                709 GTGCTGGAMAAMAAMAAAAAAAAAAA 734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HOUSTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUCLEIC ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GATTGGAAGCTTCCTGAGGCCTCCCCAGAA 80476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GATTGGAAGCTTCCTGAGGCCTCCCCAGAA 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NONE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TEXAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      713-682-5807
                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LINEAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WORDPERFECT 6.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MARTIN L. MCGREGOR
180 WEST 34TH STREET, #345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DISKETTE 3.5 INCH 1.44 MB STORAGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OTHER NUCLBIC ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SINGLE
                                                                                                                                                                                                                                                                                                                              1.0%; Dr/
100.0%; Pr/
0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NOVEL SH3 PROTEIN, GENE, CHIMERIC CELLS, VECTORS AND EXPRESSION METHOD FOR PRODUCING THE NOVEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US/08/871,732A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2
                                                                                                                                                                                                                                                                                                                                                       Score 26; DB 3; Length 735; Pred. No. 0.1;
                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AND USES
                                                                           DNA and Uses Thereof
                                                                                                                                                                                                                                                                                                                                        <u>,</u>
                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                        0
```

Ś

2595 GCTGGAMAAMAAAAAAAAAAAA 2618

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ફ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 13
US-07-972-481-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-346-510B-2
                                                                US-07-972-481-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1, Appril 8 No. 5578453
Best Local Similarity
Matches 24; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQ ID NO 2
LENGTH: 735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity 100.0%;
                                Query Match
                                                                                                                                                                                                                                                          FILING DATE: 12-APR-1993

CLASSIFICATION: 435

PRIOR APPLICATION DATA:

APPLICATION NUMBER: INTERNATIONAL PCT/
APPLICATION NUMBER: INTERNATIONAL PCT/
FILING DATE: 09-AUG-1991

ATTORNEY/AGENT INFORMATION:

NAME: SVERNSON, LECUARD R

REGISTRATION NUMBER: 30,330

REFERENCE/DOCKET NUMBER: 446-102PCT
TELECOMMUNICATION INFORMATION:

TELEPHONE: (703) 205-8000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR FILING DATE:
NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                                             TELEFAX: (703) 205 80:
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: cDNA sequence of TADG5 gene isolated from a cDNA OTHER INFORMATION: ovarian library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: DNA
ORGANISM: Homo sapiens
                                                                              FEATURE:
NAME/KEY:
LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM FC compatible
CORRATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 682 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION:
                                                                                                                                 MOLECULE TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: MCDONALD,
APPLICANT: JOHNSON, I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STREET: 8110 GATEH
CITY: FALLS CHURCH
                                                                                                                                                 TOPOLOGY:
                                                                                                                                                           STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY: USA
ZIP: 22040-0747
                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER:
                                                                                                                                                                          TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2593 GTGCTGGAAAAAAAAAAAAAAAAAAAAA 2618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  709 GTGCTGGAAAAAAAAAAAAAAAAAA 734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Application US/07972481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VIRGINIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B: BIRCH, STEWART,
8110 GATEHOUSE ROA
                                                                                                                                                                                                                                               (703) 205 8050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
 Conservative
                                                                                1..289
                                                                                                                                                 linear
                                                                                               CDS
                                                                                                                                                                                                                                                                                                                                                            UMBER: INTERNATIONAL PCT/AU91/00347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1997-06-09
                                                                                                                              (genomic)
               100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLONING AND EXPRESSION OF TOXOPLASMA ANTIGENS USE OF RECOMBINANT ANTIGENS
                                0.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PETER J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1.0%; Score 26; DB 3; 00.0%; Pred. No. 0.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 US/07/972,481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ROAD
                 Score 24;
; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ..
 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KOLASCH & BIRCH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                 DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                Length 682;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 735
   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ٥,
 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
 0,
```

```
RESULT 14
US-09-149-476-179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        묽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 179,
   EARLIER
EARLIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT
EARLIER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  atent No. 642000 atent No. 64200 atent N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILE REFERENCE: PZO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION N
FILING DATE:
APPLICATION N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 1997-03-07
APPLICATION NUMBER: 60/038,621
PTITING DATE: 1997-03-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EILING DATE: 1997-05-23
PELICATION NUMBER: 60/047,592
PETITING DATE: 1997-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 60/047,618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 60/040,626
FILING DATE: 1997-03-07
APPLICATION NUMBER: 60/040,334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 1998-03-06
APPLICATION NUMBER: 60/040,162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/09/149,476
APPLICATION NUMBER: 60/047,612
FILING DATE: 1997-05-23
APPLICATION NUMBER: 60/047,632
FILING DATE: 1997-05-23
APPLICATION NUMBER: 60/047,601
                                                                                                                                                                                                                               APPLICATION NUMBER: 60/047,582 FILING DATE: 1997-05-23 APPLICATION NUMBER: 60/047,596
                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 1997-US-20
APPLICATION NUMBER: 60/047,598
PTT.TNG DATE: 1997-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 1997-05-23
APPLICATION NUMBER: 60/047,587
FILING DATE: 1997-05-23
APPLICATION NUMBER: 60/047,492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 60/047,503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/047,617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 60/047,583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 60/047,633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 60/047,502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 60/047,597 FILING DATE: 1997-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 60/047,615 FILING DATE: 1997-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 1997-03-07
APPLICATION NUMBER: 60/047,600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 60/040,163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 60/040,336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 1997-03-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 60/040,333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 1997-03-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: PCT/US98/04493
                                                                                                                                                                                         FILING DATE: 1997-05-23
                                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
APPLICATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 60/047,500 FILING DATE: 1997-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                                                        FILING DATE: 1997-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 1997-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               79, Application 6420526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER: 60/047,596
                                                                                                                                                                                                                                                                                                                                                                           NUMBER: 60/047,613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER: 60/047,584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER: 60/047,581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1997-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1997-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1997-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1997-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1997-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1997-03-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1998-09-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human Secreted proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US/09149476
```

EARLIER
EARLIER
EARLIER
EARLIER
EARLIER
EARLIER
EARLIER EARLIER EARLIER EARLIER EARLIER EARLIER EARLIER EARLIER EARLIER EARLIER EARLIER EARLIER EARLIER EARLIER SARLIER ARLIER R FILING DATE: R APPLICATION N R FILING DATE: PILING DATE: 1997-00-22
APPLICATION NUMBER: 60/056,889
APPLICATION NUMBER: 60/056,889 APPLICATION NUMBER: 60/056,631 FILING DATE: 1997-08-22 APPLICATION NUMBER: 60/056,845 APPLICATION NUMBER: 60/056,874 APPLICATION NUMBER: 60/056,880 FILING DATE: 1997-08-22 APPLICATION NUMBER: 60/056,894 APPLICATION NUMBER: 60/056,882 FILING DATE: 1997-08-22 APPLICATION NUMBER: FILING DATE: 1997-08 FILING DATE: 1997-08-22
APPLICATION NUMBER: 60/056,893 APPLICATION NUMBER: 60/048,974 FILING DATE: 1997-06-06 APPLICATION NUMBER: 60/043,672 FILING DATE: 1997-04-11 APPLICATION NUMBER: 60/043,315 FILING DATE: 1997-04-11
APPLICATION NUMBER: 60/043,313 APPLICATION NUMBER: 60/043,674 APPLICATION NUMBER: 60/043,569 FILING DATE: 1997-04-11 FILING DATE: 1997-04-11 APPLICATION NUMBER: 60/043,314 FILING DATE: FILING DATE: 1997-08
APPLICATION NUMBER: FILING DATE: 1997-08-22 APPLICATION NUMBER: 60/056,910 FILING DATE: 1997-08-22 APPLICATION NUMBER: 60/056,636 FILING DATE: APPLICATION : APPLICATION NUMBER: 60/056,903 FILING DATE: 1997-08-22 APPLICATION NUMBER: 60/056,877 APPLICATION NUMBER: 60/056,886 FILING DATE: 1997-04-11 APPLICATION NUMBER: 60/043,312 APPLICATION NUMBER: 60/043,669 FILING DATE: APPLICATION NUMBER: 60/043,671 FILING DATE: 1997-04-11 APPLICATION NUMBER: 60/043,311 APPLICATION NUMBER: 60/043,580 FILING DATE: 1997-04-11 APPLICATION NUMBER: 60/043,568 FILING DATE: APPLICATION APPLICATION NUMBER: 60/056,911 FILING DATE: APPLICATION NUMBER: 60/056,888 FILING DATE: APPLICATION NUMBER: 60/056,637 FILING DATE: FILING DATE: 1997-08-22 APPLICATION NUMBER: FILING DATE: FILING DATE: 1997-04-11 FILING DATE: FILING DATE: FILING DATE: APPLICATION NUMBER: 60/056,872 APPLICATION NUMBER: 60/056,662 NUMBER: 60/056,845 NUMBER: 1997-08-22 1997-08-22 1997-08-22 1997-08-22 1997-08-22 1997-08-22 1997-08-22 1997-08-22 1997-08-22 1997-08-22 1997-08-22 1997-08-22 1997-04-11 1997-04-11 1997-04-11 1997-05-23 R: 60/056,892 60/056,878 60/056,864 60/056,879 60/056,630

```
EARLIER
EARLIE
                                                                                                                                                APPLICATION NUMBER: 60/049,610 FILING DATE: 1997-06-13
                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/057,650
FILING DATE: 1997-09-05
APPLICATION NUMBER: 60/056,884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/043,576
FILING DATE: 1997-04-11
APPLICATION NUMBER: 60/047,501
FILING DATE: 1997-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 1997-05-23
APPLICATION NUMBER: 60/047,593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 1997-08-22
APPLICATION NUMBER: 60/047,595
FILING DATE: 1997-05-23
                                                                                        APPLICATION NUMBER: 60/061,060 FILING DATE: 1997-10-02
                                                                                                                                                                                                             APPLICATION NUMBER: 60/057,669 FILING DATE: 1997-09-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: 60/056,908 FILING DATE: 1997-08-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 1997-08-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 60/
FILING DATE: 1997-08-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/056,632 FILING DATE: 1997-08-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 60/043,670 FILING DATE: 1997-04-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 60/047,594 FILING DATE: 1997-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 60/047,590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 60/047,586 FILING DATE: 1997-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: 60/047,585
                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 1997-06-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: 1997-08-22
APPLICATION NUMBER: 60/056,887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 1997-08-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/056,876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 1997-05-23
APPLICATION NUMBER: 60/043,578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/047,589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE: 1997-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/047,588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/047,599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 60/057,761
                                                                                                                                                                                                                                                                       FILING DATE: 1997-08-22
                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: 60/048,964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: 60/056,862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 1997-08-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 60/056,875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILING DATE: 1997-08-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: 60/056,909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: 60/056,881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 1997-08-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 1997-04-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 60/047,614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 1997-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 1997-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 1997-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             [LING DATE: 1997-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1997-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60/056,664
DB 4;
0.72;
```

```
O.9%; Score 24; DB 4; Length 1509;
Best Local Similarity 100.0%; Pred. No. 0.72;
Matches 24; Conservative 0; Mismatches 0; Indels 0; Ga

Qy 2595 GCTGGAAAAAAAAAAAAAAAAAAAAA 2618
Db 1428 GCTGGAAAAAAAAAAAAAAAAAA 1451

RESULT 15
US-09-621-976-14560
; Sequence 14560, Application US/09621976
```

```
밁
                          S
                                                                                                                          ; TYPE: DNA; ORGANISM: Homo sapiens US-09-621-976-14560
                                                                                                                                                                                                                                                                                                Patent No. 6639063
GENERAL IMPORMATION:
APPLICANT: Dumas Milne Edwards,
APPLICANT: Jobert, S.
APPLICANT: Giordano, J.Y.
                                                                                                                                                                     APPLICANT: Giordano, J.Y.
TITLE OF INVENTION: ESTS and Encoded Human Proteins.
FILE REFERENCE: GENSET. 054PR2
CURRENT APPLICATION NUMBER: US/09/621,976
CURRENT FILING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 19335
SOFTWARE: Patent.pm
SEQ ID NO 14560
LENGTH: 87
                                                          Query Match
Best Local Similarity
Matches 23; Conserv
                             2596 СТGGAAAAAAAAAAAAAAAAAAA 2618
32 CTGGAAAAAAAAAAAAAAAAA 54
                                                              Conservative
                                                                            0.9%;
                                                             0; Mismatches
                                                                            Score 23;
Pred. No.
                                                                                                                                                                                                                                                                                                                                         J.B.
                                                                             DB 4;
2.3;
                                                                0
                                                                                            Length 87;
                                                                Indels
                                                              <u>,</u>
                                                                Gaps
```

0

Search completed: October 30, 2004, 00:50:23
Job time : 221 secs

This Page Blank (uspto)

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Minimum
Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Post-processing: Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Total number of hits satisfying chosen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Word size :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BB BB
                                                                                                                                                                                                                                                                        Score
                         1093
1088
1088
969
969
916
867
856
                                                                                                                                                                                                                                2618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             seq length: 0 seq length: 2000000000
                                                                                                                                                                                                                                                                      Query
Match
                                            100.0
42.1
41.7
41.6
41.6
37.0
37.0
37.0
37.0
37.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             October 29, 2004, 22:34:23 ; Search time 1218 Seconds (without alignments)
11021.397 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OLIGO NUC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-867-570-1
2618
1 aacaattgccgcg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3413475 seqs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gapop 60.0 , Gapext 60.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Published_Applications_NA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                               : /cgn2_6/ptodata/2/pubpna/USO7_PUBCOMB.Beq:*
: /cgn2_6/ptodata/2/pubpna/USO6_NEW_PUB.Beq:*
: /cgn2_6/ptodata/2/pubpna/USO6_NEW_PUB.Beq:*
: /cgn2_6/ptodata/2/pubpna/USO6_PUBCOMB.Beq:*
: /cgn2_6/ptodata/2/pubpna/USO7_NEW_PUB.Beq:*
: /cgn2_6/ptodata/2/pubpna/USO9_NEW_PUB.Beq:*
: /cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.Beq:*
: /cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.Beq:*
: /cgn2_6/ptodata/2/pubpna/USO9_PUBCOMB.Beq:*
: /cgn2_6/ptodata/2/pubpna/USOO_PUBCOMB.Beq:*
: /cgn2_6/ptodata/2/pubpna/USOO_PUBCOMB.Beq:*
: /cgn2_6/ptodata/2/pubpna/USOO_PUBCOMB.Beq:*
: /cgn2_6/ptodata/2/pubpna/USOO_PUBCOMB.Beq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                      Length
      8622
1369
1400
1400
969
969
969
969
1997
1997
                                                                                                                                                                                                                                2618
                                                                                                                                                                                                                                                                        멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2563800928 residues
                                                                                                                                11
15
14
9
        10
16
14
15
  11 US-09-867-570-1
11 US-09-867-570-3
11 US-09-867-570-3
15 US-10-292-798-1273
14 US-10-183-116-30
15 US-10-225-567A-673
10 US-09-995-225-19
10 US-09-995-225-19
10 US-09-995-278-19
11 US-10-401-377A-1
11 US-09-995-278-19
12 US-10-239-673-9
13 US-10-237-467-9
15 US-10-237-467-9
15 US-10-101-510-239
                                                                                                                                                                                                                                                                        ╏
                                                                                                                                                                                                                                                                                                                                    SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           parameters:
Sequence 1, Appli
Sequence 3, Appli
Sequence 1273, Ap
Sequence 30, Appl
Sequence 673, Appl
Sequence 19, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 7, Appli
Sequence 7, Appli
Sequence 9, Appli
Sequence 9, Appli
Sequence 239, App
                                                                                                                                                                                                                                                                        Description
```

			ი								Ω																					
45	44	43	42	41	40	39	38	37	36	35	34	ω u	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13
46	46	46	49	53	65	82	84	84	84	84	84	97	97	97	97	97	97	120	120	120	120	120	120	120	120	120	120	120	120	275	291	434
1.8	1.8	1.8	1.9		2.5		3.2	3.2						3.7	3.7	3.7			4.6	4.6		4.6	:-	4.6	4.6	4.6	4.6	4.6	٠	10.5	11.1	16.6
503	503	503	58320	966	966	859	1005	979	955	955	461	1604	1604	1369	969	969	969	2040	1369	1369	997	969	969	969	969	969	969	969	964	275	291	1370
17	14	9	17	15	15	15	16	15	15	15	11	15	14	15	15	10	9	14	15	15	16	17	17	16	15	15	15	15	16	16	15	15
US-10-467-616-3	US-10-239-028-1	US-09-812-102-46	US-10-322-281-88	US-10-240-998-6	US-10-240-998-9	US-10-017-161-1255	-10-072	US-10-240-998-5	US-10-292-798-1077	US-10-017-161-1311	US-09-801-944B-128	US-10-225-567A-688	US-10-183-116-32	US-10-292-798-1041	US-10-237-467-3	US-09-995-225-17	US-09-995-225-17	US-10-183-116-15	US-10-292-798-897	US-10-017-161-1055	US-10-072-012-171	US-10-314-048A-19	US-10-321-807-19	US-10-343-650A-43	US-10-237-467-11	US-10-321-807-19	US-10-240-998-3	US-10-079-384-3	US-10-072-012-173	-10-305-720	-10-313-542	US-10-017-161-1599
Sequence 3, Appli	,	46,	88	Sequence 6, Appli	9	1255,	17	5, A	10	1311,	128,	688,	32, 1	10		e 17	17, 1	15, /		1055,	171,	19, 7	19,		11,	19,	ω	ω,	173	330,	164, F	Sequence 1599, Ap

## ALIGNMENTS

```
Sequence 1, Application US/09867570

Publication No. US20040076951A1

GENERAL INFORMATION:
APPLICANT: WEI, Ming-Hui et al.
TITLE OF INVENTION: ISOLATED HUMAN G-PROTEIN COUPLED
TITLE OF INVENTION: RECEPTORS, NUCLEIC ACID MOLECULES ENCODING HUMAN GPCR
TITLE OF INVENTION: RECEPTORS, NUCLEIC ACID MOLECULES ENCODING HUMAN GPCR
TITLE OF INVENTION: RECEPTORS, NUCLEIC ACID MOLECULES ENCODING HUMAN GPCR
TITLE OF INVENTION: ROTEINS, AND USES THEREOF
FILE REFERENCE: CL000900-CIP
CURRENT FILING DATE: 2000-05-31
FRIOR APPLICATION NUMBER: 09/695,045
FRIOR FILING DATE: 2000-10-25
NUMBER OF SEQ ID NOS: 4
SOFTWARE: FRASESEQ for Windows Version 4.0
SEQ ID NO 1
LENGTH: 2618
TYPE: DNA
ORGANISM: Human
US-09-867-570-1
                                       밁
                                                                               á
                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 1
US-09-867-570-1
                                                                                                                                                                        S
                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 2618; Conserv
121 CACCAGGATTGGAAGCTTCCTGAGGCCTCCCCAGAAGCAGAAGCTGCTATGCTTCTTGTA 180
                                                                                    61
                                          61
                                                                                                                                                            1 AACAATTGCCGCGAATTCGGCCACGAGATGAAATCTAGTTGTTTAAAAAGCGTGTAGCACCT
                                                                   CCTCCCTCTCTTACTCCTGCTCTCACCATGTGAGACGCCTCGCCTCCCCCCTTTGCCTTT
                                                                                                                                   AACAATTGCCGCGAATTCGGCACGAGATGAAATCTAGTTGTTTAAAAGCGTGTAGCACCT
                                                                                                                                                                                                                       100.0%; Score 2618; ilarity 100.0%; Pred. No. 0; Conservative 0; Mismatches
                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                        명
                                                                                                                                                                                                                            <u>.</u>
                                                                                                                                                                                                                                                                      11;
                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                   Length 2618;
                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                         Gaps
                                                                                        120
                                              120
                                                                                                                                     60
                                                                                                                                                                               60
                                                                                                                                                                                                                            0
```

	1081 TCCTGCTGGTCAGGATTCTCTGTGGA		901 ACCIVICATIONS TRAINING TO THE STATE OF T			721 GCGGCCACATTATATGTTCGCCGTTA 781 TCCTCAGTCCTGTGATGACCTTTCCC	— ഒ	າ—ດ ⊦							241 TATTTCTTTTAGCAATTTGAGAATG	181 CAGTCTGTAGAGCTATTAGCCAGTTA	
	TCCTGCTGGTQAGAATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGA 1140	н н	CILISGGCCCIGICCIGCIGCGAAAACG AGTGGTGCTGAATTCTGTTTTGGTGTGAAACG AGTGGTGCTGATTCTGTTTTGGTGTGAAACG	TGGCCCATCTGGTACCACTGCCGCCCCCAGAT 90 CTCTGGGCCCTGTCCCTGCTGCGGAGTATCCTGG 96	yo oo	CGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCATCTCCAAAA 780 CCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCCATCA 840	CICARCCIGGICGCGCCATCCCATCTCCAAAA 7	GCGGCCGACTTCCTCTTCCTTA 7	S—8			ωω		u u	TATTTCTTTTAGCAATTTGAGAATGAACTAATACACAGACAG	CAGTCTGTAGAGCTATTAGCCAGTTAAACCCATTTCCTTCATAAATTTCCCAGTCTCAGG 240	
Qy 2	Q & 44		. Qy	Qy 15		Оу 16 рь 16	Qy 18	Qy 1:	Оу 16 Db 16	Qу 16 Db 16	Qy 15	Qy 15	0y 14	Db 11	Db 40		
221 ATTTTAAAGTGGAAATTATCTTGAAAACCATTTATTATTCACTTACAGATTCTTTCAGTT 2280  281 GTAGGAGAATTCTTCAAGTTTCAAGGTTTTGTATAAATTGTTCTGATTGTAACTTTCAGT 2340  281 GTAGGAGAATTCTTCATACTTCCAGGTTTTGTATAAATTGTTCTGATTGTAACTTTCAGT 2340  281 GTAGGAGAATTCTTCATACTTCCAGGTTTTGTATAAATTGTTCTGATTGTAACTTTCAGT 2340	210. IGAGGAGCCIAIANAIA GCCCACCAGII CAILI C		2041 CTGTCATTTGTCCACAGCATGGTGACATGTTGGCCTTGGTTTCTAGTAAAGACAATCGTG 2100 	1981 GAGAGAGATTCTCCCTTCATAAAAACAGTCTTAGAAAATTGGTTTTATGAATAGCCCTCTC 2040 		1861 TCATGTTCCCTTTTATGACTGGAGGCATTACTGCAGTTGGAAGCTCAATTCTTAATAAGT 1920 	1801 CCTGATAGTATCAAAAAGGAAGATTCCTTATTAATCTGTCAGACTATGTTCCCCTGAAAA 1860 	1741 ATTGTAATAAAGGAGTTGCTGTCCACAACCCTTAAACTCTTCTTTATACTTGTTTCCTA 1800 	681 ACATTITCCCTGTTATCTTGCACTGAATCTTTCCTACTGAACACTTTTTCTGCACTTTTC 1740	21	1561 TCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTAACCTGACAGTTGCAGTTTT 1620		1441 GAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACAGGACTTTGAGAGCAA 1500 			CCATTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCT	1201 CCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTT 1260

8 8 8 8 8 8

8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8

D Q D Q D D

٠,,

Qy  526 TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG	US-09-867-570-3  JS-09-867-570-3  Sequence 3, Application US/09867570  Publication No. US20040076951A1  GENERAL INFORMATION: He al.  APPLICANT: WEI, Ming-Hui et al.  APPLICANT: WEI, Ming-Hui et al.  TITLE OF INVENTION: ISOLATED HUMAN G-PROTEIN COUPLED  TITLE OF INVENTION: RECEPTORS, NUCLEIC ACID MOLECULES ENCODING HUMAN GPCR  TITLE OF INVENTION: PROTEINS, AND USES THEREOF  FILE REFERENCE: CL000900-CIP  CURRENT FILING DATE: 2001-05-31  PRIOR APPLICATION NUMBER: US/09/855,045  PRIOR APPLICATION NUMBER: 09/695,045  PRIOR APPLICATION NUMBER: 09/695,045  PRIOR FILING DATE: 2000-10-25  NUMBER OF SEQ ID NOS: 4  SEQ ID NO 3  LENGTH: 8622  TYPE: DNA  GRGANISM: Human  US-09-867-570-3  Query Match  Best Local Similarity 100.0%; Pred. No. 0;  Matches 1101; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  Matches 1101; Conservative 0; Mismatches 525  QV  466 GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC 7561  Db 7502 GGGTCATCAGACTGGGGTTTCTGAGCATGCATCCCAGTCTTGGGTACAGAAC 7561	Qy 2341 TAGTTTTATGGCTGTTTACATGAGAAGCAAAACATCTGACATCTGACCATGACAA 2400
RESULT 3  US-10-292-798-1273, Application US/10292798  ; Sequence 1273, Application US/10292798  ; Publication No. US20030235833A1  ; GENERAL INFORMATION: APPLICANT: SUWA, MAKIKO APPLICANT: ASMI, KIYOSHI APPLICANT: ASMI, KIYOSHI APPLICANT: ASMIRANA, YUTAKA APPLICANT: ABURATANI, HIROYUKI TITLE OF INVENTION: GUANOSINE TRIPHOSPHATE-BINDING PROTEIN COUPLED RECEPTORS  ; FILE REFERENCE: 084335/166  ; CURRENT FILING DATE: 2001-11-13 ; PRIOR PPLICATION NUMBER: US/10/292,798 ; CURRENT FILING DATE: 2001-11-13 ; PRIOR FILING DATE: 2001-12-18 ; PRIOR FILING DATE: 2001-12-18 ; PRIOR APPLICATION NUMBER: UF 2001-246789 ; PRIOR APPLICATION NUMBER: UF 2001-246789 ; PRIOR FILING DATE: 2001-06-18 ; NUMBER OF SEQ ID NOS: 2070 ; SOFTWARE: Patentin Ver. 2.1 ; SEQ ID NO 1273 ; LENGTH: 1369	Qy 1186 TYGGGATTCAGTGGGCCCTGTTTTCCAGGATCGAAGTCTTATTTTTCC 1245	Db 7862 TGCTGAGCGCCACAATACCTGTCATCGGTCATCCTGTGGCCCATCTGGTACCACT 7921  Qy 886 GCCGCCCCAGATACCTGTCATCGGTCATGGTGTCCTGCTCTGGGCCCTGTCCCTGC 945

```
Ś
                                                                         밁
                                                                                          8
                                                                                                              밁
                                                                                                                                    ঠ
                                                                                                                                                                             S
                                                                                                                                                                                                 Дb
                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                    뭐
                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; FEATURE:
; NAME/KEY: CDS
; LOCATION: (201)..(1169)
US-10-292-798-1273
                                밁
                                                                                                                                                             뫄
                                                                                                                                                                                                                                                                   $
                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 41.7%;
Best Local Similarity 99.8%;
Matches 1193; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
LOCATION: source
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LOCATION: (1) .. (1369)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                           1126
                                                                                                                    835
                                                                                                                                                                                                         715
                                                                                                                                                                                                                                                                          946
                                                                                                                                                                                                                                                                                               595
                                                                                                                                                                                                                                                                                                                   986
                                                                                                                                                                                                                                                                                                                                          535
                                                                                                                                                                                                                                                                                                                                                             826
                                                                                                                                                                                                                                                                                                                                                                                    475
                                                                                                                                                                                                                                                                                                                                                                                                                              415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   295
                                                                                                                                                                                                                                                                                                                                                                                                        766
                                                                                                                                                                                                                                                                                                                                                                                                                                                  706
                                                                                                                                                                                                                       GGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCT 1065
                                                                                                                                                                                                                                                                                              GGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC
                                                                                                                                                                          GTGGGTCCAGCCTGGTCCTGCTCGTCAGGATTCTCTGTGGATCCCCGGAAGATGCCCGCTGA
                                                                                                                                                                                                                                                                                                                                         TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACT
                                                                                                                                                                                                                                                                                                                                                     TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCCATCTGGTACCACT
                                                                                                                                                                                                                                                                                                                                                                                               ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCCTACTTTATAGGCCTAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTTACATCCTCAACCTGGTCGCGGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCTGACGTGCATCGTTTCCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG
           ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC
                                            ATGTGCATCTAGTTTCCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTT
                                                                                      TTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTC 1245
                                                                                                                                 CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCT
                                                                                                                                                                GTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGA
                                                                                                                                                                                                           GGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCT
                                                                                                                                                                                                                                                                  TGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTT
                                                                                                                                                                                                                                                     TGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTAATTCTGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCG
                                                                                                                     CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCTCTGTGGCCTGCCCT
0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 1093; DB Pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1369;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                     1305
                                                                                                                                           1185
                                                                                                                                                                834
                                                                                                                                                                                                         774
                                                                                                                                                                                                                                                                          1005
                                                                                                                                                                                                                                                                                                                                          594
            1365
                                                                                                                                                                                                                                                                                                                                                              885
                                                                                                                                                                                                                                                                                                                                                                                    534
                                                                                                                                                                                                                                                                                                                                                                                                         825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      234
                                                                                                                     894
                                                                                                                                                                                                                                                     714
                                                                                                                                                                                                                                                                                               654
                                                                                                                                                                                                                                                                                                                     945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 585
                                                                           954
                                                                                                                                                                                                                                                                                                                                                                                                                               474
                                                                                                                                                                                                                                                                                                                                                                                                                                                  765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             294
                                                                                                                                                                        ; TYPE: DNA
; ORGANISM: Homo sapiens .
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (332)...(1297)
US-10-183-116-30
               5
                                     당
                                                           Ś
                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-183-116-30
                                                                                                                                                                                                                                          LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1015
 433
                      593
                                                                                                           473
                                                                                                                                                                                                                                           1400
```

```
Sequence 30, Application US/10183116
Publication No. US20030092035A1
GENERAL INFORMATION:
APPLICANT: Anderson, David J.
APPLICANT: Dong, Xinzhong
APPLICANT: Eylka, Mark
APPLICANT: Simon, Melvin
APPLICANT: Simon, Melvin
APPLICANT: Han, Sang-kyou
ITITLE OF INVENTION: PAIN SIGNALING MOLECULES
FILE REFERENCE: CALTE, 4C1CP1
CURRENT APPLICATION NUMBER: US/10/183,116
CURRENT APPLICATION NUMBER: US/0/202,344
PRIOR APPLICATION NUMBER: US 60/222,344
PRIOR APPLICATION NUMBER: US 60/222,344
PRIOR APPLICATION NUMBER: US 60/202,027
PRIOR FILING DATE: 2000-05-04
PRIOR APPLICATION NUMBER: US 09/704,707
PRIOR APPLICATION NUMBER: US 09/849,869
PRIOR APPLICATION NUMBER: US 09/849,869
PRIOR PILING DATE: 2001-05-04
NUMBER OF SEN IN 005-109
                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 100.0%; F
Matches 1088; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 109
SOFTWARE: FastSEQ for Windows
SEQ ID NO 30
                                                                                                                                                                                                                                                CAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTG 652
                                                                                                                                      AATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGAC
                                                                                                                                                                                                                       CAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTTGGA 1660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGACTITGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCT 1545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGCAACCTCTGCCCCTGTCAGACA 1489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC
GTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTG
                                                                                                          AATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGA 1369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAA
                                                                                                                                                                                                                                                                                                                              score 1088; Di
f; Pred. No. 0;
O; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Version
                                                                                                                                                                                                                                                                                                                                                                                    DB 14;
                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                    372
                                                                                                                                                                   592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1074
                                                                                                                                                                                                                                                                             532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1194
     492
```

```
RESULT 5
US-10-225-567A-673
; Sequence 673, Application US/10225567A
; Publication No. US20030113798A1
; GENERAL INFORMATION:
; APPLICANT: LifeSpan Biosciences
; APPLICANT: Brown, Joseph P.
                                                                                                                                   중 음
                                                                                                 δ
                                                                                                                                                                                                                                                                                                              밁
                                                                                                                       밁
                                                                                                                                                                         ક
                                                                                                                                                                                                멼
                                                                                                                                                                                                             ક
                                                                                                                                                                                                                                  뭐
                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                           1093
                                                                                                                                                                                                                                                                                                                1033
                                                                                                                                                             1273
                                                                                                                                                                                                  1213
                                                                                                                                                                                                                    1373
                                                                                                                                                                                                                                                        1313
                                                                                                                                                                                                                                                                                              1253
                                                                                                                                                                                                                                                                                                                                                                       1133
                                                                                                                                                                                                                                                                                                                                                                                                             1073
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1013
                                                                                                                                                                                                                                                                                                                                                      973
                                                                                                                                                                                                                                                                                                                                                                                          913
                                                                                                                                                                                                                                                                                                                                                                                                                               853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             493
                                                                                              CAGAAATG
                                                                                   CAGAAATG
                                                                                                                                  GAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTTCTTAGCCTTCTGCCT
                                                                                                                                                             GCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACAGGACTTT
                                                                                                                                                                        GCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGCACTCTGCCCTGTCAGACAGGACTTT
                                                                                                                                                                                                TCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCCTGGA
                                                                                                                                                                                                            TCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCCTGGA
                                                                                                                                                                                                                                      TCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCA
                                                                                                                                                                                                                                                                                                                        TCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCA
                                                                                                                                                                                                                                                                                                                                                    GTACGTGACCATCCTCACAGTGCTGGTCTTCCTCTCTGTGGCCTGCCCTTTGGCAT
                                                                                                                                                                                                                                                                                                                                                             GTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCTTTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                    CAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGGAAGATGCCGCTGACCAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                               AACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGGTTCTCTGTGGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTTGGTGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTTGGTGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGGCCCTGTCCCTGCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCCAGATACCTGTCATCGGTCATGTGTGTGTCCTGCTCTGTGGGCCCTGTCCCTGCTGCAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCCTACTTTATAGGCCTAAGCATGCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCCGACCTTCCT
                                                                                                                        GAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCTTCTGCCT
                                                                                                                                                                                                                                                                                                                                                                                         CAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCG
                                                                                    1400
                                                                                                      1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      772
                                                                                                                                           1552
                                                                                                                                                                               1492
                                                                                                                                                                                                                    1432
                                                                                                                                                                                                                                                        1372
                                                                                                                                                                                                                                                                                              1312
                                                                                                                                                                                                                                                                                                                                   1252
                                                                                                                                                                                                                                                                                                                                                                       1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1012
                                                                                                                        1392
                                                                                                                                                             1332
                                                                                                                                                                                                  1272
                                                                                                                                                                                                                                       1212
                                                                                                                                                                                                                                                                           1152
                                                                                                                                                                                                                                                                                                                1092
                                                                                                                                                                                                                                                                                                                                                                                                             1132
                                                                                                                                                                                                                                                                                                                                                                                           972
                                                                                                                                                                                                                                                                                                                                                                                                                               912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            552
                                δ
                                                                                                           S
                                                                                                                                              S
                                                                                                                                                                     밁
                                                                                                                                                                                    Ś
                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                  밁
                                                       밁
                                                                    δ
                                                                                       밁
                                                                                                                                 밁
                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                         뭐
                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
```

```
APPLICANT: Burmer, Glenna C.
APPLICANT: ROUSH, Christine L.
TITLE OF INVENTION: ANTIGENIC PEPTIDES AND ANTIGENIC PEPTIDES ANTIGEN
ે છ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity nes 1088; Conserv
                                                                                    1033
                                                                                                                                          1193
                                                                                                                                                                                                                                                                                                                                                                           1073
                                                                                                                                                                                                                                                            1133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1013
                                                                                                                                                                                                      973
                                                                                                                                                                                                                                                                                                                  913
                                                                                                                                                                                                                                                                                                                                                                                                                                    853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             773
                                                                                                                                                                                                                                                                                                                                                      CAGCCTGGTCCTGCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACC
                                                                                                                     TCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTTGTCATGTGCA
                                                                                                                                                                                                                                 GTACGTGACCATCCTCCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCTTTGGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGGCCATCCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACC
                              TCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCCATCATTTACTTCTT
                                                                                       TCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCA
                                                                                                                                                                                                      GTACGTGACCATCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCTTTGGCAT
                                                                                                                                                                                                                                                                                                                     CAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                       AACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGGTTCTCTGTGGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    41.6%; Score 1088; ilarity 100.0%; Pred. No. 0; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ANTIBODIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1400;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROTEIN-COUPLED RECEPTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1072
                                                                                                                                                1252
                                                                                                                                                                                                         1032
                                                                                                                                                                                                                                                                                                                        972
                                                                                                                                                                                                                                                                                                                                                                                 1132
                                                                                                                                                                                                                                                                                                                                                                                                                                          912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           372
                                    1312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
```

ORGANISM: Artificial Sequence FEATURE: OTHER INFORMATION: No. US20020193584A1el Sequence	19 969 A		; PRIOR FILING DATE: 2001-05-14; PRIOR APPLICATION UNMBER: 60/309,208; PRIOR FILING DATE: 2001-07-31	FILING DATE: APPLICATION N	PRIOR APPLICATION NUMBER: 60/282,336 PRIOR APPLICATION NUMBER: 60/282,356		; PRIOR FILING DATE: 2001-02-20 ; PRIOR APPLICATION NUMBER: 60/282,365 ; PRIOR FILING DATE: 2001-04-06 ; PRIOR APPLICATION NUMBER: 60/270,266		; FILE OF INVENTAGE ACCEPTORS; FILE REFERENCE: AREN-0308; FILE REFERENCE: AREN-0308; CURRENT APPLICATION NUMBER: US/09/995,225; CURRENT FILING DATE: 2001-11-26; CURRENT FILING DATE: 09/170.496	CANI: Daily, nuc CANT: Lowitz, K CANT: Pride, Ca OF INVENTION: E	GENERAL INFORMATION:  APPLICANT: Chen, Ruoping  APPLICANT: Chu, Zhi Liang	RESULT 6 US-09-995-225-19 is Sequence 19, Application US/09995225	Db 1393 CAGANATG 1400	1333 GAGRACIAGOCCACCCTTGACAATTATATGCATTTTTCTTAGCCTTCTGCCT 139	1433 GC.101 CONSTRUCTION I STANCE AND INCOME TO SECURITION CONTROL OF THE SECURITION	1373 1C1GCAGGACACGCCIGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGA	1313 CGTGGGCTCCTTTAGGCAGCGTCAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGC	1093
Qy 1452 GAGCAGTGA 1460           Db 961 GAGCAGTGA 969		Qy 1392 GTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTG 1451	Db 841 CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG 900	781	TCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG	Qy 1212 AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTCCTG 1271		AGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC	Qy 972 TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACA 1031	Qy 912 GTCATGTGTGTCCTGGGCCCTGTCCCTGCGGAGTATCCTGGAGTGGATGTTC 971	OY 852 TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCCCAGATACCTGTCATCG 911	QY 792 GTGATGACCTTTCCCTACTTTATAGGCCTAAGCATCGAGCGCCATCAGCACCGAGCGC 851	Qy 732 ATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCATCTCCAAAATCCTCAGTCCT 791	OY 672 GTCTCCATCTACATCCTCAACCTGGTCGGGCCGACTTCCTCTTCCTTAGCGGCCACATT 731	QY 612 GCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT 671	QY 552 ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCTTGTC 611	Qy 492 ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG 551	Query Match 37.0%; Score 969; DB 9; Length 969; Best Local Similarity 100.0%; Pred. No. 0; Matches 969; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

360

420

851

```
PRIOR APPLICATION NUMBER: 60/290,917
PRIOR FILING DATE: 2001-05-14
PRIOR FILING DATE: 2001-05-14
PRIOR FILING DATE: 2001-07-31
                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                    $
                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/09/95,225
CURRENT FILING DATE: 2001-11-26
PRIOR APPLICATION NUMBER: 09/170,496
PRIOR PILING DATE: 1998-10-13
PRIOR PILING DATE: 1998-10-13
PRIOR PILING DATE: 1998-10-13
PRIOR PILING DATE: 1998-10-13
PRIOR PILING DATE: 2000-11-27
PRIOR PILING DATE: 2000-11-27
PRIOR PILING DATE: 2000-12-12
PRIOR PILING DATE: 2000-12-12
PRIOR PILING DATE: 2001-02-20
PRIOR PILING DATE: 2001-04-06
PRIOR PILING DATE: 2001-04-06
PRIOR APPLICATION NUMBER: 60/282,356
PRIOR PILING DATE: 2001-04-06
PRIOR APPLICATION NUMBER: 60/282,356
PRIOR PILING DATE: 2001-04-06
PRIOR APPLICATION NUMBER: 60/282,356
PRIOR PILING DATE: 2001-04-06
PRIOR PILING DATE: 2001-04-06
PRIOR APPLICATION NUMBER: 60/282,356
PRIOR PILING DATE: 2001-04-06
PRIOR PILING DATE: 2001-04-06
PRIOR PILING DATE: 2001-04-06
PRIOR PILING DATE: 2001-05-14
                                                                                   δ
                                                                                                                                                    밁
                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-995-225-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 969; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 19, Application US/09995225 Publication No. US20030139588A9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Lowitz, Kevin P.
APPLICANT: Pride, Cameron
TITLE OF INVENTION: Endogenous And No. US20030139588A9-Endogenous Versions of
TITLE OF INVENTION: Receptors
FILE REFERENCE: AREN-0308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Chen,
APPLICANT: Chu,
APPLICANT: Dang,
                                                                                      732
                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                 612
                                                                                                                                                                                                                                                                                                                                                                                                                          552 ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                492 ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chen, Ruoping
Chu, Zhi Liang
Dang, Huong T.
Lowitz, Kevin P.
Pride, Cameron
                                                                   ATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCATCTCCAAAATCCTCAGTCCT 791
                                                                                                                                                                                GTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCTCTTCCTTAGCGGCCACATT
                                                                                                                                                                                                                                                                      GCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                                                                                                                                                              GCGCTGACAGGAAACGCGGTTGTGCTCTTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                                                                                                                                                                                                                                            ACTOCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             37.0%; Score 969; DI
100.0%; Pred. No. 0;
tive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              969;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                 671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60
                                                                                                                                                 240
                                                                                                                                                                                                           731
                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                      611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human
                                                                                                                                                                   GENERAL INFORMATION:

APPLICANT: Peri, Krishna G.

APPLICANT: Moffett, Serge

APPLICANT: Abran, Daniel

TITLE OF INVENTION: METHODS AND COMPOUNDS FOR PREVENTION AND TREATMENT OF E

TITLE OF INVENTION: METHODS AND COMPOUNDS FOR PREVENTION S

PILE REPERENCE: 45.18/1M674US1

CURRENT APPLICATION NUMBER: US/10/401,397A

CURRENT FILING DATE: 2003-03-27

PRIOR APPLICATION NUMBER: US 60/367,513

PRIOR PILING DATE: 2002-03-27

NUMBER OF SEQ ID NOS: 8

SOPTWARE: Patentin version 3.1

1ENUTY 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 8
US-10-401-397A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1, Application US/10401397A Publication No. US20030212001A1
LENGTH: 969
TYPE: DNA
ORGANISM: Homo sapien
FEATURE:
NAME/KEY: CDS
LOCATION: (1)..(969)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               . 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCTGTGGGTCCAGCCTGGTCCTGGTC 1091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGCAGTGA 1460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTTCCTG 127:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCCCAGATACCTGTCATCG 911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTGATGACCTTTCCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGCAGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGGATGAAGGTGGAGGGTGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTG 1451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCCGCTCTTAACAGCAGTGCCAACCCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACAGTGCTGGTCTTCCTCCTGTGGCCTGCCCTTTGGCATTCAGTGGGCCCTGTTTTTCC 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACAGTGCTGGTCTTCCTCCTCTGTGGCCCTGCCCCTTTTGCCAGTGGGCCCTGTTTTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGATTCTCTGTGGATCCCGGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC 1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACA 1031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGCTGCGGAGTATCCTGGAGTGGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGCGGAGTATCCTGGAGTGGATGTTC 971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCCAGATACCTGTCATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCCATCAGCACCGAGCGC
                                                                                         варiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     969
```

1391

840

780

900

960

1211

660

540

480

ဝှု

ELEVATED

```
; OTHER INFORMATION: US-10-401-397A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
nes 966; Conserv
                                                                                                                                                                                                                             1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1032
                                                                                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
GAGCAGT
                                                                                                                                                                                                                                                                                                                                                     ACAGTGCTGGTCTTCCTCCTCTGTGGGCCTTGCCCTTTTGGCATTCAGTGGGCCCTGTTTTCC 1211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCCCAGATACCTGTCATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGATGACCTTTCCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATATGTTCGCCGTTACGCCTCATCAATATCCGCCCATCCCCAAAATCCTCAGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCTCTTCCTTAGCGGCCACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCGCTGACAGGAGACGCGGTTGTGCTCTGGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCGTTTCCCCTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGGCTGACGTGCATCGTTTCCCTTGTC
                                                                                                                      CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG 1391
                                                                                                                                                                                           TCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG 1331
                                                                                                                                                                                                                                                                                                                                                                                                                        AGGATTCTCTGTGGATCCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC 1151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCTCTTCCTTAGCGGCCACATT
                                                                        GTGGATGAAGGTGGAGGGTGGCTTCCCTCAGGAAACCCCTGGAGCTGTCGGGAAGCAGATTG 1451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCTGTGGGTCCAGCCTGGTCCTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTTGGTGAAAACGTCAGATTTCATTACA 1031
                                                                                                                                                                                                                                                                                                  AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTCCTG 1271
                                                                                                                                                                                                                                                                                                                                                                                                      AGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATCGCGTGGCTGGTTTTTTTATGTGTGGGTTCTCTGTGGGTCCAGCCTGGTCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACA
                                                                                                                                                                                                                                                                                                                                 ACAGTGCTGGTCTTCCTCTGTGGCCTGCCCTTTGGCATTCAGTGGGCCCTGTTTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    coding sequence for polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             35.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 916; DB Pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 15; Length 969;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                    960
                                                                                                                                                                                                                                                                                                                                                                                                      660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; TYPE: DNA
; ORGANISM: Homo
US-10-391-074-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 9
US-10-391-074-1
                                                                                              5
                                                                                                                                        밁
                                                                                                                                                                       S
                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                   묽
                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
 밁
                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Wathler, Frank

APPLICANT: Wathler, Frank

TITLE OP INVENTION: No. US20040038345A1e1 Human Seven-Transmembrane Receptors

FILE REFERENCE: 7705.0008-00-000

CURRENT APPLICATION NUMBER: US/10/391,074

CURRENT FILING DATE: 2003-03-17

NUMBER OF SEQ ID NOS: 4

SOFTWARE: FastSEQ for Windows Version 3.0

SEQ ID NO 1

LENGTH: 969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1, Application US/10391074
Publication No. US20040038345A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 33.1%;
Best Local Similarity 99.9%;
Matches 917; Conservative
                                                                                                     1092
                                                                                                                                                                          1032
 661
                                                                     601
                                                                                                                                          541
                                                                                                                                                                                                             481
                                                                                                                                                                                                                                             972
                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                      852
                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            492 ATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACGGACGTGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      961
                                                                                                                                                                                                                                                                                                                                                                                                                                                         792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                 ACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGGCTGACGTGCATCGTTTCCCTTGTC 611
                   ACAGTGCTGGTCTTCCTCTGTGGCCTGCCCTTTGGCATTCAGTGGGCCCTGTTTTCC 1211
                                                                                                                                                                                                                               TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAGATTTCATTACA 1031
                                                                                                                                                                                                                                                                                                GTCATGTGTGTCCTGCTCTGGGGCCCTGTCCCTGCTGCGGAGTATCCTGGAGTGGATTGTTC 971
                                                                                                                                                                                                                                                                                                                                                                                                                          GTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                            GTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCCATCTCCAAAATCCTCAGTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCTCTTAGCGGCCACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTCTCCATCTACATCCTCAACCTGGTCGCCGGCCGACTTCCTTTCCTTTAGCGGCCACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGCAGT
                                                                                         AGGATICTCTGTGGATCCCGGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC 1151
                                                                                                                                                                            ATCGCGTGGCTGGTTTTTTTATGTGTGGGTTCTCTGTGGGTCCAGCCTGGTCCTGCTGGTC 1091
                                                                                                                                                                                                                                                                                GTCATGTGTGTCCTGGGCCCTGTCCCTGCGGAGTATCCTGGAGTGGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATACGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCCATCTCCAAAATCCTCAGTCCT
                                                                   AGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 867; DB 1
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
```

S

₽ Ś 문

В

8

문 S 밁 Ś 밁 5 밁

밁 8 문 Ś 밁 S В Ś

600

660

540

420

911 360 791

240

300

671

60

180

8

В

8 밁 S 밁 Ś 밁 Ś

₽

1 3 50

```
문
                                                                     S
                                                                                                          밁
                                                                                                                                       र्
                                                                                                                                                                            문
                                                                                                                                                                                                                   ફ
                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                         ş
                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT FILING DATE: 2002-08-15
PRIOR APPLICATION NUMBER: US/60/313,658
PRIOR APPLICATION NUMBER: US 60/313,658
PRIOR PRILING DATE: 2001-08-20
PRIOR PRILING DATE: 2001-08-20
PRIOR PILING DATE: 2001-10-30
PRIOR APPLICATION NUMBER: US 60/318,675
PRIOR PILING DATE: 2001-09-12
PRIOR APPLICATION NUMBER: US 60/355,596
PRIOR APPLICATION NUMBER: US 60/355,596
PRIOR APPLICATION NUMBER: US 60/333,417
PRIOR APPLICATION NUMBER: US 60/338,367
PRIOR APPLICATION NUMBER: US 60/338,367
PRIOR APPLICATION NUMBER: US 60/338,367
PRIOR FILING DATE: 2001-11-26
PRIOR FILING DATE: 2001-11-06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 10
US-10-219-834-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 7
LENGTH: 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:

APPLICANT: Bristol-Myers Squibb Company

TITLE OF INVENTION: G-PROTEIN COUPLED RECEPTOR POLYNUCLEOTIDES AND METHODS OF USB

FILE REFERENCE: D0191 NP
                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 32.7%; Score 856; D
Best Local Similarity 100.0%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 7, Application US/10219834 Publication No. US20030096751A1
                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: DNA
ORGANISM: Homo sapiens
-10-219-834-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: PatentIn version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQ ID NOS: 192
                                                                                                                                                 1567
                                                                                                                                                                                      1202
1687 TCCCTGTTATCTTGCACTGAATCTTTCCTACTGAACACTTTTTCTGCACTTTTCATTGTA 1746
                                                                                                                                                                                                                                                                                                                                                                          1387 CTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                          TGGAAAGCATTAGTCTGACAGTACAATGTTTTGGATTCTCCTTGATATTACCAATACATTT
                                                                                                              TGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTAACCTGACAGTTGCAGTTTTCACCCA
                                                                                                                                   TGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTAACCTGACAGTTGCAGTTTTCACCCA
                                                                                                                                                                                    CCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCTTCTGCCTCAGAAATGTCTCAG
                                                                                                                                                                                                                       CCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCTTCTGCCTCAGAAATGTCTCAG
                                                                                                                                                                                                                                                              GATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACAGGACTTTGAGAGCAATGCTGC
                                                                                                                                                                                                                                                                                                 GATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACAGGACTTTGAGAGCAATGCTGC
                                                                                                                                                                                                                                                                                                                                    CTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAAACCCTGGAGCTGTCGGGAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGGATGAAGGTGGAGGG 918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTGGATGAAGGTGGAGGG 1409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCCGCTCTTAACAGCAGTGCCAACCCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTTCCAGTTTTCCTG
                                    TGGAAAGCATTAGTCTGACAGTACAATGTTTGGATTCTCCTTGATATTACCAATACATTT
                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                               <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 14;
                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1997;
                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                    1381
                                                                       1686
                                                                                                            1321
                                                                                                                                                 1626
                                                                                                                                                                                                                         1566
                                                                                                                                                                                                                                                                                                 1506
                                                                                                                                                                                                                                                                                                                                                                          1446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1331
                                                                                                                                                                                      1261
                                                                                                                                                                                                                                                              1201
                                                                                                                                                                                                                                                                                                                                      1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             녎
               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                      Matches
```

```
TITLE OF INVENTION: Sensory Neuron Receptors
FILE REFERENCE: 021288-001300US
CURRENT APPLICATION NUMBER: US/10/237,467
CURRENT FILING DATE: 2003-01-14
PRIOR APPLICATION NUMBER: US 60/317,879
PRIOR FILING DATE: 2001-09-07
NUMBER OF SEQ ID NOS: 18
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 11
US-10-237-467-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 9, Application US/10237467
Publication No. US20030186324A1
GENERAL INFORMATION:
                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Liao, Jiayu
                                                                                                     OTHER INFORMATION: dorsal root ganglia G-protein coupled receptor (GPCR) OTHER INFORMATION: 7 (DRG7) (NT009307)
                                                                                                                                               ORGANISM: Homo sapiens FEATURE:
                                                                                                                                                                                         LENGTH: 909
TYPE: DNA
                        Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1807
  al Similarity
847; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                           Gray, Nathanael S. Caldwell, Jeremy C. Schultz, Peter G. IRM LLC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTTGTCCACAGCATGGTGACATGTTGGCCTTGGTTTCTAGTAAAGACAATCGTGGCCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTTGTCCACAGCATGGTGACATGTTGGCCTTGGTTTCTAGTAAAGACAATCGTGGCCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCCCTGTTATCTTGCACTGAATCTTTCCTGAACACTTTTTCTGCACTTTTCATTGTA 1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAGTGGAAATTATCTT 1937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAGTGGAAATTATCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCTATAAATATGTCCCACCAGTTTCATTTTGGCCATTGGAAACCTCAATATTGATTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCTATAAATATGTCCCCACCAGTTTCATTTTGGCCATTGGAAACCTCAATATTGATTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCCCTTGAGAACTGGTAAGTTCTTATTTAGCTCTTCCTGGACTAATGAACTAGTGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCCCCTTGAGAACTGGTAAGTTCTTATTTAGCTCTTCCTGGACTAATGAACTAGTGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GATTCTCCCTTCATAAAAACAGTCTTAGAAATTGGTTTTATGAATAGCCCTCTCCTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GATTCTCCCTTCATAAAAACAGTCTTAGAAATTGGTTTTATGAATAGCCCTCTCCTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGCTACCTCTAAATTCCATTGAATTCTCAGATATAAAGCAAAATAATGACCTTAGAGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGCTACCTCTAAATTCCATTGAATTCTCAGATATAAAGCAAAATAATGACCTTAGAGAGA 1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCCCTTTTATGACTGGAGGCATTACTGCAGTTGGAAGCTCAATTCTTAATAAGTGAGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCCCTTTTATGACTGGAGGCATTACTGCAGTTGGAAGCTCAATTCTTAATAAGTGAGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGTATCAAAAAGGAAGATTCCTTATTAATCTGTCAGACTATGTTCCCCCTGAAAATCATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGTATCAAAAAGGAAGATTCCTTATTAATCTGTCAGACTATGTTCCCCCTGAAAATCATGT 1866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATAAAAGGAGTTGCTGTCCACAACCCCTAAAACTCTTCTTTATACTTGTTTCCTACCTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATAAAAGGAGTTGCTGCCACAACCCCTAAAACTCTTCTTTATACTTGTTTCCTACCTGAT 1806
28.5%;
llarity 99.8%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2242
Pred. No. 0;
0; Mismatches
                                          DB 15;
                                       Length 909;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1561
```

612 GCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT

2

Indels

ç,

Gaps

```
; Sequence 239, Application US/10101510
; Publication No. US20030148295A1
; GENERAL INFORMATION:
   APPLICANT: WANG, VIXIN
   APPLICANT: WANG, VIXIN
   TITLE OF INVENTION: EXPRESSION PROFILES AND ME:
   FILE REFERENCE: 15117.0012
; CURRENT APPLICATION NUMBER: US/10/101,510
; CURRENT FILING DATE: 2002-03-20
; PRIOR APPLICATION NUMBER: 60/276,947
; PRIOR FILING DATE: 2001-03-20
; PRIOR FILING DATE: 2001-03-20
; NUMBER OF SEQ ID NOS: 805
                                                                                                                                                                         RESULT 12
US-10-101-510-239
                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                     뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                            1452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1032
                                                                                                                                                                                                                                   901
                                                                                                                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                             CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG 1391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCTCTTCCTTAGCGGCCACATT
                                                                                                                                                                                                                                                            GAGCAGTGA 1460
                                                                                                                                                                                                                                                                                                                                                                                                        TCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATCTTATTTTCCTG 1271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGATTCTCTGTGGATCCCGGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCTGTGGGTCCAGCCTGGTCCTGCTGCTC 1091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGTGACTTCCTGTTTAGTGGTGCTAATTCTGTTTGGTGTGAAACGTCAGATTTCATTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTCATGTGTGTCCTGGGCCCTGTCCCTGCGGAGTATCCTGGAGTGGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGCTGCGAGTATCCTGGAGTGGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCGCGAGATACCTGTCATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGATGACCTTCCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCAGCACCGAGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGATGACCTTTCCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCCATCAGCACCGAGCGC
                                                                                                                                                                                                                                   GAGCAGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACAGTGCTGGTCTTCCTCTCTGTGGCCTGCCCTTTGGCAFTCAGTGGGCCCTGTTTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGACCATCCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCTGTGGGTCCAGCCTGGTCCTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTAAACGTCAGATTTCATTACA 1031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCCAGATACCTGTCATCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGCGCAGGAACGCT
                                                                                                                                                                                                                                                                                         GTGGATGAAGGTGGAGGTGGCTTCCTCAGGAAACCCTTGGAGCTGTCGGGAAGCAGATTG
                                                                                                                                                                                                                                                                                                                     GTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTG 1451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACAGTGCTGGTCTTCCTCTCTGTGGCCTTTGGCATTCAGTGGGCCCTGTTTTCC
                                                                                                                                                                                                                                                                                                                                                 CGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAG
                                                                                                                                                                                                                                   909
                                                                                        METHODS
                                                                                        ဝှု
                                                                                        ESD
                                                                                                                                                                                                                                                                                                                                                                                                                                    1331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             731
                                                                                                                                                                                                                                                                                                                                                 840
                                                                                                                                                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                720
```

```
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 239
; LENGTH: 769
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: modified_base
; LOCATION: (750)
; OTHER INFORMATION: a, t, c
US-10-101-510-239
                                               문
                                                                       S
                                                                                                   맑
                                                                                                                                                                            Ś
                                                                                                                                                                                                         뭥
                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                   片
                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             片
                                                                                                                      Ś
                                                                                                                                                    뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 748; Conserv
                     1482
                                                                                                                                                                                1302
                                                                                                                                                                                                                                                                                      1182
                                                                                                                                                                                                                                                                                                                                         1122
                                                                                                                                                                                                                                                                                                                                                                                            1062
                                                                                                                                                                                                                                                                                                                                                                                                                                             1002
                                                                           1422
                                                                                                                             1362
                                                                                                                                                                                                                                  1242
                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                 301
                                                 661
                                                                                                     601
                                                                                                                                                       541
                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    882
721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ب
                                                                                                                                                                                                                                                                                                              CTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CACTGCCGCCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCATCTGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGCCATCCCAAAATCCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
            GACAGGACTTTGAGAGCAATGCTGCCCTG. 1510
                                                               GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA
                                                                                                                                                                    ATTTACTTCCTGGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT
                                                                                                                                                                                                                                                            CCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT
                                                                                                                                                                                                                                                                              CCCTTTGGCAFTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT
                                                                                                                                                                                                                                                                                                                                                                   CTCTGTGGGTCCAGCCTGGTCCTGCTCGGATCCTCTGTGGATCCCGGAAGATGCCG
                                                                                                                                                                                                                                                                                                                                                                               CTCTGTGGGTCCAGCCTGGTCCTGCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                      GTTTGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGCTGCGGAGTATCCTGGAGTGGATTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
                                                 GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA
                                                                                                      CTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAG
                                                                                                                  CTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAG
                                                                                                                                                                                                         TGTCATGTGCATCTAGTTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC
                                                                                                                                                                                                                         TGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                             GTTTGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT
GACAGGACTTTGAGAGCAATGCTGCCCTG
                                                                                                                                                        ATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; Score 698; DB
; Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g, other or unknown
 749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                              1421
                                                                            1481
                                                                                                                                                                                                                                    1301
                                                                                                                                                                                                                                                                                        1241
                                                                                                                                                                                                                                                                                                                                                                                              1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1001
                                                                                                      660
                                                                                                                                                         600
                                                                                                                                                                                   1361
                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                            1181
                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
```

RESULT 13
US-10-017-161-1599
; Sequence 1599, Application US/10017161
; Publication No. US20030143668A1
; GENERAL INFORMATION:

```
APPLICANT: SUWA, MAKIKO
APPLICANT: ASAI, KIYOSHI
APPLICANT: ASAI, KIYOSHI
APPLICANT: AKIYAMA, YUTAKA
APPLICANT: AKURATANI, HIROYUKI
TITLE OF INVENTION: NOVEL G PROTEIN-COUPLED RECEPTORS
FILE REFERENCE: 084335/0152
CURRENT APPLICATION NUMBER: US/10/017,161
CURRENT FILING DATE: 2002-12-18
PRIOR APPLICATION NUMBER: JP 2001/246789
PRIOR APPLICATION NUMBER: JP 2001/246789
PRIOR FILING DATE: 2001-06-18
NUMBER OF SEQ ID NOS: 2430
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 1599
                                                                                                                                          RESULT 14
US-10-313-542-164
                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        გ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; FEATURE:
; NAME/KEY: CDS
; LOCATION: (996)..(1170)
US-10-017-161-1599
                                                                             Sequence 164, Application US/10313542
Publication No. US20030120057A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 16.6%; Score 434; DB 15; ]
Best Local Similarity 100.0%; Pred. No. 1.2e-210;
Matches 434; Conservative 0; Mismatches 0;
APPLICANT: Roopa, Reddy
APPLICANT: Guegler, Karl, J.
APPLICANT: Au-Young, Janice
TITLE OF INVENTION: COMPOSITION FOR DETECTION OF GENES ENCODING MEMBRANE-ASSOCIATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: CDS
LOCATION: (201)..(619)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: source
LOCATION: (1)..(1370)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 1370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1227 TGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTCCATTTTTCCTGTCCGCTCTTAACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           937 TGGAAAGTCTTATTTTGTCATGTGCATCTAGTTTTCCATTTTCCTGTCCGCTCTTAACAGC
                                                                                                                                                                                                                          GTACAATGTTTGGA 1660
                                                                                                                                                                                                                                                                                                                                 ATAGATGTTTATCTAACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACA 1646
                                                                                                                                                                                                                                                                                                                                                                                                             TATGCATTTTTCTTAGCCTTCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGA 1586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCTCTGCCCTGTCAGACAGGACTTTGAGAGCCAATGCTGCCCTGCCACCCTTGACAATTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGTGGCTTCCTCAGGAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGTGCCAACCCCATCATTTACTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCTCTGCCCTGTCAGACAGGACTTTGAGAGAGCAATGCTGCCCTGCCACCCTTGACAATTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1370;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1286
                                                                                                                                                                                                                                                                                                          1356
                                                                                                                                                                                                                                                                                                                                                                                        1296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
    п
```

```
CURRENT APPLICATION NUMBER: US/10/313,542
CURRENT FILING DATE: 2002-12-05
PRIOR APPLICATION NUMBER: US/09/495,050
PRIOR FILING DATE: 2000-01-31
PRIOR APPLICATION NUMBER: 60/118,318
PRIOR APPLICATION NUMBER: 60/118,318
PRIOR FILING DATE: 1999-02-01
PRIOR FILING DATE: 1999-02-01
SUPUMBER OF SEQ ID NOS: 305
SOPTWARE: PERL Program
SEQ ID NO 164
LENGTH: 291
                                                                                                                                                    ; ORGANISM: Homo sapiens
; PEATURE;
; NAME/KEY: misc_feature
; OTHER INFORMATION: Incyte ID No. US20040010136A1 1909132
US-10-305-720-330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
밁
                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-305-720-330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-313-542-164
                                                                                                                                                                                                                                              APPLICANT: Au-Young, Janice K.; Seilhamer, Jeffrey J.
TITLE OF INVENTION: Composition for the Detection of Signaling Pathway Gene Expression
FILE REFERENCE: PA-0002-1 CON
CURRENT APPLICATION NUMBER: US/10/305,720
CURRENT FILING DATE: 2002-11-26
PRIOR APPLICATION NUMBER: 09/016,434
PRIOR FILING DATE: 1998-01-30
NUMBER OF SEQ ID NOS: 1490
SOPTWARE: PERL Program
SEQ ID NO 330
LENGTH: 275
TYPE: DNA
TYPE: DNA
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 330, Application No. US200 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILE REFERENCE: PA-0013 US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: misc feature
OTHER INFORMATION: Incyte ID No. US20030120057A1 1909132CT1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    762 CGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             291,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                        CGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CACTGCCGCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC
  CGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTTTGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTA 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CACTGCCGCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Application US/10305720 o. US20040010136A1
                                                                       ilarity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Preu. ...
hive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11.1%; Score 291; DB 15; 1 100.0%; Pred. No. 1.5e-137;
                                                                                                                 10.5%;
                                                                           <u>,,</u>
                                                                                         Score 275; DB 16; 1
Pred. No. 2.3e-129;
                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 291;
                                                                                                                 Length 275;
                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1001
    60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60
                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
```

Searc	B 8	g 8	D Qy	B 8
Search completed: October 30, 2004, 03:54:26 Job time : 1230 secs	1002 GITTGGTGTGAAACGTCAGATTTCATTACAATCGC 1036	942 CIGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT 1001	882 CACTGCCGCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGTGGGCCCTGTCC 941	822 AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC 881

```
Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Post-processing: Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Word size :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OLIGO_NUC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-867-570-1
2618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                October 29, 2004, 19:13:03; Search time 9581 Seconds (without alignments)
                                                                                                                                                                       333113335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               44308572 seqs, 20275418765 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gapop 60.0 , Gapext 60.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pending_Patents_NA_Main: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Copyright
                                                                                                                                                                                                                                                                                                                                                /cgn2
/cgn2
/cgn2
/cgn2
                                                                                                                                                                                                                                                                                                                                                                                                                                                        /cgn2
/cgn2
/cgn2
/cgn2
/cgn2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /cgn2
/cgn2
                                                                                                                                                                                                                                                                    /cgn2
/cgn2
/cgn2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /cgn/
m2_6/ptodata/1/pna/US081_COMB.seq:*
m2_6/ptodata/1/pna/US081_COMB.seq:*
m2_6/ptodata/1/pna/US083_COMB.seq:*
m2_6/ptodata/1/pna/US083_COMB.seq:*
m2_6/ptodata/1/pna/US083_COMB.seq:*
gn2_6/ptodata/1/pna/US084_COMB.seq:*
gn2_6/ptodata/1/pna/US086_COMB.seq:*
gn2_6/ptodata/1/pna/US086_COMB.seq:*
gn2_6/ptodata/1/pna/US086_COMB.seq:*
gn2_6/ptodata/1/pna/US086_COMB.seq:*
gn2_6/ptodata/1/pna/US096_COMB.seq:*
gn2_6/ptodata/1/pna/US095_COMB.seq:*
gn2_6/ptodata/1/pna/US092B_COMB.seq:*
gn2_6/ptodata/1/pna/US092B_COMB.seq:*
gn2_6/ptodata/1/pna/US093B_COMB.seq:*
gn2_6/ptodata/1/pna/US093B_COMB.seq:*
gn2_6/ptodata/1/pna/US093B_COMB.seq:*
gn2_6/ptodata/1/pna/US093B_COMB.seq:*
gn2_6/ptodata/1/pna/US093B_COMB.seq:*
gn2_6/ptodata/1/pna/US095B_COMB.seq:*
gn2_6/ptodata/1/pna/US095B_COMB.seq:*
gn2_6/ptodata/1/pna/US095B_COMB.seq:*
gn2_6/ptodata/1/pna/US095B_COMB.seq:*
gn2_6/ptodata/1/pna/US095B_COMB.seq:*
gn2_6/ptodata/1/pna/US095B_COMB.seq:*
gn2_6/ptodata/1/pna/US095B_COMB.seq:*
gn2_6/ptodata/1/pna/US099B_COMB.seq:*
gn2_6/ptodata/1/pna/US09B_COMB.seq:*
gn2_6/ptodata/1/pna/US09B_COMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /ptodata/1/pna/PCTUS1_COMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GenCore version 5.1.6 (c) 1993 - 2004 Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11080.481 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JS2_COMB.seq:*
COMB.seq:*
COMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         189184
```

```
45. Cggg2. 6/prodata/1/pna/USI009_COMB. seq:
46. Cggg2. 6/prodata/1/pna/USI00E_COMB. seq:
47. Cggg2. 6/prodata/1/pna/USI00E_COMB. seq:
48. Cggg2. 6/prodata/1/pna/USI01A_COMB. seq:
49. Cggg2. 6/prodata/1/pna/USI01A_COMB. seq:
50. Cggg2. 6/prodata/1/pna/USI01A_COMB. seq:
51. Cggg2. 6/prodata/1/pna/USI01A_COMB. seq:
52. Cggg2. 6/prodata/1/pna/USI01A_COMB. seq:
53. Cggg2. 6/prodata/1/pna/USI01A_COMB. seq:
54. Cggg2. 6/prodata/1/pna/USI01A_COMB. seq:
55. Cggg2. 6/prodata/1/pna/USI01A_COMB. seq:
56. Cggg2. 6/prodata/1/pna/USI01A_COMB. seq:
57. Cggg2. 6/prodata/1/pna/USI01A_COMB. seq:
58. Cggg2. 6/prodata/1/pna/USI01A_COMB. seq:
59. Cggg2. 6/prodata/1/pna/USI01A_COMB. seq:
50. Cggg2. 6/prodata/1/pna/USI01A_COMB. seq:
51. Cggg2. 6/prodata/1/pna/USI01A_COMB. seq:
52. Cggg2. 6/prodata/1/pna/USI01A_COMB. seq:
53. Cggg2. 6/prodata/1/pna/USI01A_COMB. seq:
54. Cggg2. 6/prodata/1/pna/USI01A_COMB. seq:
55. Cggg2. 6/prodata/1/pna/USI01A_COMB. seq:
56. Cggg2. 6/prodata/1/pna/USI01A_COMB. seq:
57. Cggg2. 6/prodata/1/pna/USI01A_COMB. seq:
58. Cggg2. 6/prodata/1/pna/USI00A_COMB. seq:
59. Cggg2. 6/prodata/1/pna/USI01A_COMB. seq:
59. Cggg2. 6/prodata/
```

```
117: /cgn2_6/ptodata/1/pna/US6051_COMB.seq:*
118: /cgn2_6/ptodata/1/pna/US6052_COMB.seq:*
119: /cgn2_6/ptodata/1/pna/US6052_COMB.seq:*
120: /cgn2_6/ptodata/1/pna/US6054_COMB.seq:*
121: /cgn2_6/ptodata/1/pna/US6055_COMB.seq:*
122: /cgn2_6/ptodata/1/pna/US6055_COMB.seq:*
123: /cgn2_6/ptodata/1/pna/US6055_COMB.seq:*
124: /cgn2_6/ptodata/1/pna/US6059_COMB.seq:*
125: /cgn2_6/ptodata/1/pna/US6059_COMB.seq:*
```

APPLICANT: WEI, Ming-Hui et al.

TITLE OF INVENTION: ISCLATED HUAN G-PROTEIN COUPLED TITLE OF INVENTION: RECEPTORS, NUCLEIC ACID MOLECULES ENCODING TITLE OF INVENTION: PROTEINS, AND USES THEREOF FILE REFERENCE: CL000900-CIP CURRENT APPLICATION NUMBER: US/09/867,570

CURRENT APPLICATION NUMBER: US/09/867,570

CURRENT FILING DATE: 2001-05-31

PRIOR APPLICATION NUMBER: 09/695,045

PRIOR PRIOR DATE: 2001-025

PRIOR PRIOR DATE: 2001-025

HUMAN

GPCR

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

, f		4 4		4	4	4.	3.5	36	w	36	į į.		ر د	) ب	L.	ω	30	29	28					c 23						13	16	15	14	13	12	c 11	10	9	œ	. •	σ.			4.4			No	Result
0	000																																		1093				_		•	_	29	2618	61	19	Score	•
34.7		با د د د		. د		•	<u>ب</u>	35.1		35.1	ŗ	9	٠:	٦:		7.	37.0	37.0	37.0	37.3	37.3	37.3	37.3	7.	37.3	37.3			41.6		•	•		Η.	•	ï	2	Ü		43.8		Ü	49.6	100.0	100.0		Match	Query
1997	1007	0 0		969	_	J	σ	969	6	920	N	0	٥,	J	g	σ	σ	σ	969		w	1136		1136	1136	1136	1136	2068	8357	40	40	40	40	0	1369	œ	8622	-	5	ū	55	55	45	2618	۳	13	Length	
7	÷ 1	١٠	лı	2 ;	9	98	53	ω u	3	74	L		n c	۰ a	44	44	44	33	33	84	84	84	84	83	83	83	83	86	87	49	48	35	N	1	50	85	36	23	13	27	27	27	32	84	84	36	В	
08-10-219-634-7	1000	2 '	10-391-074-1	-09-477-620A	60-302-655-9	-60-212-655-9	-10-401-	US-09-787-879C-4	-09-787-879A-	-60-091-	-09-343-168-	-00 242 266-	10-E0E-406-30	60-000-515-1	-09-995-225B-1	09-995-225A-	-09-995-225-1	US-09-787-879C-3	-879A-	905	US-60-190-001-136	60-190-005-7	-60-190-001-1	-60-185-389-	-60-185-377-	-60-185-377-	-60-185-377-	60-212-655-	60-229-515-	10-225-	10-183-116-3	09-849-869A-	US03-15004-	-US01-14519-30	-10-292-798-1	-60-201-715-	-09-867-570-3	-09-532-367-	-10-745-4	-09-634-7541	09-634-754C-7	09-634-754-7	-09-721-	US-60-190-928-1	-60-190-	-09-867-5	ID	
education, white	Addition 1	۱,	equence 1	- ;	emience 9. Ar	equence 982	equence 1,	equence 4,	Sequence 4, Appli	9	equence 309,	equence 200,	educated TOTAL	1911	19.	19,	19,	ω	'n	7	136	7, Ar	136	11, 7	114,	113,	107,	228,	569,	673,	°,	equence 30,	30,	0, Appl	7	47,	u	55, 7	equence 740,	equence 740,	equence 740,	equence 740, 1	equence 437	e 1,	equence 1,	equence 1,	Description	

ALIGNMENTS

RESULT 1
US-09-867-570-1
; Sequence 1, Application
; GENERAL INFORMATION:

US/09867570

; SOFTWARE: FastSEQ for Windows Version ; SEQ ID NO 1 ; LENGTH: 2618 ; TYPE: DNA ; ORGANISM: Human US-09-867-570-1 멍 Ş 밁 ঠ 밁 S 밁 S 밁 S 맑 S 밁 S 밁 S 밁 8 片 8 당 ঠ 밁 Query Match 100.0%; Score 2618; Best Local Similarity 100.0%; Pred. No. 0; Matches 2618; Conservative 0; Mismatches 661 601 601 541 541 481 481 421 421 361 361 301 301 241 181 121 121 721 241 181 61 61 1 AACAATTGCCGCGAATTCGGCACGAGATGAAATCTAGTTGTTTAAAAGCGTGTAGCACCT GACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCG CCTCCCTCTCTTACTCCTGCTCTCACCATGTGAGACGCCTCGCTCCCCCCTTTGCCTTT GCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCCATCTCAAAA 780 GCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCTCTTCCTTA 720 GACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCG GGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACG TGGGATGTCAAACAGGATAAAGAAGAATGGAAAGCAAATCCTCATGGGTCATCAGACTGG 480 ATCCCAAGGTGCTTTCCTGCTGTCTTCCAGTCTCCTGCTGGTGTCTCCCAGTGTCTCCAAT 360 CACCAGGATTGGAAGCTTCCTGAGGCCTCCCCAGAAGCAGAAGCTGCTATGCTTCTTGTA CACCAGGATTGGAAGCTTCCTGAGGCCTCCCCAGAAGCAGAAGCTGCTATGCTTCTTGTA CTCCCTCTCTTACTCCTGCTCTCACCATGTGAGACGCCTCGCTCCCCCTTTGCCTTT AACAATTGCCGCGAATTCGGCACGAGATGAAATCTAGTTGTTTAAAAGCGTGTAGCACCT GCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCATCTCCAAAA GCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCTCTTCCTTA TTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGC TTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGC GGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACG TGGGATGTCAAACAGGATAAAGAAGAATGGAAAGCAAATCCTCATGGGTCATCAGACTGG TCCACCAGAAACCAGAAATAAAAAGAATCCCACTGATGTGGTACATAGAAGCCACTCTCT 420 ATCCCAAGGTGCTTTCCTGCTGTCTTCCAGTCTCCTGCTGGTGTCTCCAGTGTCTCAAT TCCACCAGAAACCAGAAATAAAAAGAATCCCACTGATGTGGTACATAGAAGCCACTCTCT Mismatches DB 36; Length 2618; .. Indels 0; Gaps 660 600 660 480 360 240 180 180 120 60 780 720 600 540 540 420 240 0

 .TGTTCCCCTGAAAA 18 AATTCTTAATAAGT 19		98
ATACTTGTTTCCTI            ATACTTGTTTCCTI ATACTTGTTTCCTI	ATTGTAATAAAAGGAGTTGCTGTCCACAACCCTA	1741 1741 1801
TTTCTGCACTTTT	ACATITICCCIGITATCTIGCACTGAAICTI	1681 1681
	CACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGATTCTV	1621 1621
ACAGTTGCAGTTT            ACAGTTGCAGTTT	TCTCAGTGGTCCC	561 561
CTGCCTCAGAAAT	TGCTGCCCTGC	G G
CAGGACTTTGAGAGCAA                  CAGGACTTTGAGAGCAA	GAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGA	1441 1441
CCTGGAGCTGTCG           CTGGAGCTGTCG	ACACGCCTGACGTGGATGAAGGTGGACGTTGGCTTCCTCAGGAAACCCTGGAGCTGTCCGG 	1381 1381
CCAGAGGGCTCTGCAGG	CCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCT	321 321
CTTCTTCGTGGGCT	CCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCT	261 261
TGTGCATCTAGTTT           TGTGCATCTAGTTT	CCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTT	201 201
TGGCATTCAGTGGC           TGGCATTCAGTGGC	CCATCCTCCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCTTTGGCATTCAGTGGG 	1141 1141
CAGGCTGTACGTGA           CAGGCTGTACGTGA	TCCTGCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGA	1081 1081
TGGGTCCAGCCTGG           TGGGTCCAGCCTGG	ATTTCATTACAATCGCGTGGCTGGTTTTTTATGTGTGGTTCTCTGTGGGTCCAGCCTGG	1021 1021
GTGTGAAACGTCAG            gTGTGAAACGTCAG	AGIGGATGITCTGTGACTICCIGTTTAGIGGTGCTGATICTGTTIGGTGTG.	61
GCGGAGTATCCTGG           CGGAGTATCCTGG	ACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGCTGCGGGAGT.	901
CCGCCGCCCAGAT	GCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCGC 	841 841
CTAAGCATGCTGAGCGCCATCA	TCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGC	781 781

```
S
                                         문
                                                        5
                                                                               밁
                                                                                                         S
                                                                                                                                   밁
                                                                                                                                                    S
                                                                                                                                                                                 밁
                                                                                                                                                                                                    S
                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                               ર્
                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                        र्
                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                     2401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1861
                                                                                                                                                                                  2341
                                                                                                                                                                                                         2341
                                                                                                                                                                                                                                                                                                                                                                      2101
                    2581
                                            2521
                                                                 2521
                                                                                        2461
                                                                                                               2461
                                                                                                                                                            2401
                                                                                                                                                                                                                                2281
                                                                                                                                                                                                                                                     2281
                                                                                                                                                                                                                                                                             2221
                                                                                                                                                                                                                                                                                                  2221
                                                                                                                                                                                                                                                                                                                         2161
                                                                                                                                                                                                                                                                                                                                               2161
                                                                                                                                                                                                                                                                                                                                                                                             2101
                                                                                                                                                                                                                                                                                                                                                                                                                  2041
                                                                                                                                                                                                                                                                                                                                                                                                                                         2041
                                                                                                    GACATACATGAACCTGGAAATATTGTGCTAAGGAAAATAAGCCAGACGCCAAACAATATT
                                                                                                                                                  TCTCAATTATGGTATCTGGATAATAACTTACAGTTGGTACAGAATTCTGATACATGCTGT
                                                                                                                                                                                               TAGTTTTATGGCTGTTTACATGAGAAGCAAAACTGAAAACATCTGACCTTTCCATGACAA
                                                                                                                                                                                                                                                                                                                                        TGAGGAGCCTATAAATATGTCCCACCAGTTTCATTTTGGCCATTGGAAAACCTCAATATTG
                                                                                                                                                                                                                                                                                                                                                                                  GCCCCTTCCCCCTTGAGAACTGGTAAGTTCTTATTTAGCTCTTCCTGGACTAATGAACTAG
                                                                                                                                                                                                                                                                                                                                                                                                                              CTGTCATTTGTCCACAGCATGGTGACATGTTGGCCTTGGTTTCTAGTAAAGACAATCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGAGAGATTCTCCCTTCATAAAAAACAGTCTTAGAAATTGGTTTTATGAATAGCCCTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGTTCTGCTACCTCTAAATTCCATTGAATTCTCAGATATAAAGCAAAATAATGACCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TAGTTTTATGGCTGTTTACATGAGAAGCAAAACTGAAAACATCTGACCTTTCCATGACAA
                                                                                                                                                                                                                                             GTAGGAGAATTCTTCATACTTCCAGGTTTTTGTATAAATTGTTCTGATTGTAACTTTCAGT
                                                                                                                                                                                                                                                                            ATTTTAAAGTGGAAATTATCTTGAAAACCATTTATTATTCACTTACAGATTCTTTCAGTT
                                                                                                                                                                                                                                                                                        ATTTAAAGTGGAAATTATCTTGAAAACCATTTATTATTCACTTACAGATTCTTTCAGTT
                                                                                                                                                                                                                                                                                                                        TGAGGAGCCTATAAATATGTCCCACCAGTTTCATTTTGGCCATTGGAAACCTCAATATTG
                                                                                                                                                                                                                                                                                                                                                                      GCCCCTTCCCCTTGAGAACTGGTAAGTTCTTATTTAGCTCTTCCTGGACTAATGAACTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGAGAGATTCTCCCTTCATAAAAACAGTCTTAGAAATTGGTTTTATGAATAGCCCTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGTTCTGCTACCTCTAAATTCCATTGAATTCTCAGATATAAAGCAAAATAATGACCTTA
GACATACATGAACCTGGAAATATTGTGCTAAGGAAAATAAGCCAGACGCCAAACAATATT
                                                                                                                                      TCTCAATTATGGTATCTGGATAATAACTTACAGTTGGTACAGAATTCTGATACATGCTGT
                                                                                                                                                                                                                                 GTAGGAGAATTCTTCATACTTCCAGGTTTTGTATAAATTGTTCTGATTGTAACTTTCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                  CTGTCATTTGTCCACAGCATGGTGACATGTTGGCCTTGGTTTCTAGTAAAGACAATCGTG
                                                                                                                                                                                                                                                                                                                                                                                             2160
                                             2580
                                                                    2580
                                                                                                                2520
                                                                                                                                                              2460
                                                                                                                                                                                                                                                                                                                                                                                                                                         2100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1920
                                                                                                                                       2460
                                                                                                                                                                                    2400
                                                                                                                                                                                                          2400
                                                                                                                                                                                                                                  2340
                                                                                                                                                                                                                                                        2340
                                                                                                                                                                                                                                                                             2280
                                                                                                                                                                                                                                                                                                    2280
                                                                                                                                                                                                                                                                                                                           2220
                                                                                                                                                                                                                                                                                                                                                2220
                                                                                                                                                                                                                                                                                                                                                                       2160
                                                                                                                                                                                                                                                                                                                                                                                                                     2100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2040
```

```
US-60-190-928-1
US-60-190-928-1
; Sequence 1, Application US/60190928
; GENERAL INFORMATION:
; APPLICANT: Bonazzi, Vivien
; TITLE OF INVENTION: ISOLATED HUMAN G-PROTEIN COUPLED
; TITLE OF INVENTION: RECEPTOR HAVING HOMOLOGY TO THE MAS PROTO-ONCOGENE, NUCLEIC
; TITLE OF INVENTION: ACID MOLECULES ENCODING THIS HUMAN GPCR PROTEIN, AND USES
; TITLE OF INVENTION: THEREOP
; FILE REFERENCE: CL000387
; CURRENT APPLICATION NUMBER: US/60/190,928
; CURRENT FILING DATE: 2000-03-21
; NUMBER OF SEQ ID NOS: 2
; SOFTMARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 2618
; TYPE: DNA
; ORGANISM: HUMAN
; ORGANISM: HUMAN
```

8 8 8 8 8

8 8 8 8

ð 밁 S 밁 S 밁 S 밁 5 밁 ঠ 밁 ঠ 밁 ર્ફ 뭐 S 밁 ঠ 밁 δ 밁 S 밁

밁

, 8	₽ <i>Q</i>	p Q	B &	B &	D 99	₽ &	р <b>У</b>	B 8	B &	₽ <i>Q</i>	д <i>Q</i>	B 8	B &	B 8	д <b>Q</b>	g 49	Db Q	Best Matcl
1021 ATTTCATTACAATCGCGTGGCTTGGTTTTTTTATGTGTGCGTTCTGTGGGTCCAGCCTGG 1080	961 AGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGAAACGTCAG 1020 	901 ACCTGTCATCGGTCATGTGTGTGCTGCTGCTGGGCCCTGTCCCTGCTGCGGAGTATCCTGG 960	841 GCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCGCCCCCAGAT 900	781 TCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAGCGCCATCA 840	721 GCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCATCCCATCAAAA 780	661 GCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCTCTTCCTTA 720	601 TTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGC 660	541 GACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCG 600	481 GGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACG 540	421 TGGGATGTCAAACAGGATAAAGAAGAATGGAAAGCAAATCCTCATGGGTCATCAGACTGG 480	361 TCCACCAGAAACCAGAAATAAAAAGAATCCCACTGATGTGGTACATAGAAGCCACTCTCT 420	301 ATCCCAAGGIGCTTTCCTGCTGTCTTCCAGTCTCCTGCTGGTGTCTCCCAGTGTCTCAAT 360	241 TATTTCTTTTTAGCAATTTGAGAATGAACTAATACACAGACAG	181 CAGTCTGTAGAGCTATTAGCCAGTTAAACCCATTTCCTTCATAAATTTCCCAGTCTCAGG 240	121 CACCAGGATTGGAAGCTTCCTGAGGCCTCCCCAGAAGCAGAAGCTGCTATGCTTCTTGTA 180	COTECCTETETTACTECTECTETCACCATGTGAGACGCCTCGCTCTCCCTTTGCCTTT 1	1 AACAATTGCCGCGAATTCGGCACGAGATGAAATCTAGTTGTTTAAAAGCGTGTAGCACCT 60 1 AACAATTGCCGCGCAATTCGGCACGAGATGAAATCTAGTTGTTTAAAAGCGTGTAGCACCT 60	Similarity 100.0%; Pred. No. 0; Similarity 100.0%; Pred. No. 0; Indels 0; Gaps
				· ·											····			
당 5	₹ \$ £	§ ₽ ;	오 B &	;	?	₹ B £	\$ \$ \$	§ ₽ ;	수 유 :	₹ ₽ ₽	\$ \$ \$	?	\$ \$ \$	?	S B	& B	<b>장</b> 용	Q bb
GCCCCTTCCCCTTGAGAACTGGTAAGTTCTTATTTAGCTCTTCCTGGACTAATGAACTAG				1001 CANTELICCULILLA CONCUMBACIÓN DE LA CONCUMBACIÓN DE LA CONTROL CON			ACAITING CONTRACTOR CO								1261 CCATTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTT 1260	1141 CCATCCTCCACAGGATCCACCTGGATCGAAAGTCTATTTTTTTT	1081 TCCTGCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGA 1140 1141 CCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCTTTGGCATTCAGTGGG 1200	1021 ATTICATIACAATCGCGTGGCTGGTTTTTTTATGTGTGGGTTCTCTGTGGGTCCAGCCTGG 1080 1081 TCCTGCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGA 1140

Query Match Best Local Similarity 100.0%; Score 2618; DB 84; Length 2618;  Matches 2618; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  1 AACAATTGCCGCGAATTCGGCACGAGATGAAATCTAGTTGTTTAAAAGCGTGTAGCACCT 60	TITLE OF INVENTION: ACID MULECULES ENCODING THIS HUMAN GECK PROTEIN, AND USES TITLE OF INVENTION: THEREOF  PILE REFERENCE: CLO00387 CURRENT APPLICATION NUMBER: US/60/190,928 CURRENT FILING DATE: 2000-03-21  NUMBER OF SEQ ID NOS: 2 SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 1 SEQ ID NO 1 LENGTH: 2618 TYPE: DNA ORGANISM: HUMAN US-60-190-928-1	RESULT 3 US-60-190-928-1 US-60-190-928-1 ; Sequence 1, Application US/60190928 ; GENERAL INFORMATION: ; APPLICANT: Bonazzi, Vivien ; TITLE OF INVENTION: ISOLATED HUMAN G-PROTEIN COUPLED ; TITLE OF INVENTION: RECEPTOR HAVING HOMOLOGY TO THE MAS PROTO-ONCOGENE, NUCLEIC ; TITLE OF INVENTION: RECEPTOR HAVING HOMOLOGY TO THE MAS PROTO-ONCOGENE, NUCLEIC	OY 2521 GTAAGTTCAAATTCTATGAGGTATCCAAATTAGGAAATTCTTGAACACAGAAAATAAAT	Db 2461 GACATACATGAACTGGAAATATTGTGCTAAGGAAAATAAGCCAGACGCCAAACAATATT 2520  Db 2461 GACATACATGAACCTGGAAATATTGTGCTAAGGAAAATAAGCCAGACGCCAAACAATATT 2520  Db 2461 GACATACATGAACCTGGAAATATTGTGCTAAGGAAAATAAGCCAGACGCCAAACAATATT 2520	2341 TAGTTTTATGGCTGTTTACATGAGAAGCAAAACTGAAAACATCTGACCTTTCCATGACAA	2281 GTAGGAGAATTCTTCATACTTCCAGGTTTTGTATAAATTGTTCTGATTGTAACTTTCAGT	QY 2221 ATTTTAAAGTGGAAATTATCTTGAAAACCATTTATTCACTTACAGATTCTTTCAGTT 2280	QY 2161 TGAGGAGCCTATAAATATGTCCCACCAGTTTCATTTTTGGCCATTGGAAAACCTCAATATTG 2220
	P	5 8 8 8 8	p & p &	5 G AS	) B Q	₽ <b>Q</b>	분 정	D Qy
ATTTCATTACANTGCGGGCTGGTTTTTTTATGTGGTTCTTGTGGGTCCAGCCTGG 1080  1021 ATTTCATTACAATGCGGTGGCTGGTTTTTTTATGTGGGTTCTTGTGGGTCCAGCCTGG 1080  1081 TCCTGCTGGTGAGAATCCTCTGTGGATCCCGGAAGATGCCGGTGACCAGGCTGACGTGA 1140  1081 TCCTGCTGGTCAGGATTCTCTGTGGGATCCCGGAAGATGCCGCTGACCAGGCTGTACGTGA 1140  1141 CCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGACCAGGCTGTACGTGA 1140  1141 CCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCTTTGGCATTCAGTGG 1200  1141 CCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTTTGGCATTCAGTGG 1200  1141 CCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTTTGGCATTCAGTGG 1200  1201 CCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTT 1260  1201 CCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCATCTAGTTT 1260  1261 CCATTTTCCTGTCCGCTCTTAACAGGAAGTCCTACCTCATTTACTTCCTTC	GLACCURGE CONTROLL OF THE CONTROL OF THE CONTR		601 TITCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTGCCGCATGC 660	481 GGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACCAATCAACG 540 541 GACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGACGTGCATCG 600			301 ATCCCAAGGTGCTTTCCTGCTGTCTTCCAGTCTCCTGCTGGTGTCTCCCAGTGTCTCAAT 360	241 TATTTCTTTTTAGCAATTTGAGAATGAACTAATACACAGACAG

밁

```
1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGAGAGATTCTCCCCTTCATAAAAACAGTCTTAGAAATTGGTTTTATGAATAGCCCTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTGTAATAAAAGGAGTTGCTGTCCACAACCCTAAAACTCTTCTTTATACTTGTTTCCTA 1800
                                                                                                                                 GTAGGAGAATTCTTCATACTTCCAGGTTTTGTATAAATTGTTCTGATTGTAACTTTCAGT
                                                                                                                                                                                                                                                                                                                      TGAGGAGCCTATAAATATGTCCCACCAGTTTCATTTTGGCCATTGGAAACCTCAATATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCCCTTCCCCCTTGAGAACTGGTAAGTTCTTATTTAGCTCTTCCTGGACTAATGAACTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGTCATTTGTCCACAGCATGGTGACATGTTGGCCTTGGTTTCTAGTAAAGACAATCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGTTCTGCTACCTCTAAATTCCATTGAATTCTCAGATATAAAGCAAAATAATGACCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCTGATAGTATCAAAAAGGAAGATTCCTTATTAATCTGTCAGACTATGTTCCCCTGAAAA 1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGATTCTCCTTGATATTACCAAT 1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTAACCTGACAGTTGCAGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACAGGACTTTGAGAGCAA 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACAGGACTTTGAGAGCAA 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TAGTTTTATGGCTGTTTACATGAGAAGCAAAACTGAAAACATCTGACCTTTCCATGACAA
                                                                                                                                                                                                                                                                                                                                                                                                                 GCCCCTTCCCCTTGAGAACTGGTAAGTTCTTATTTAGCTCTTCCTGGACTAATGAACTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGAGAGATTCTCCCTTCATAAAAACAGTCTTAGAAATTGGTTTTATGAATAGCCCTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGTTCTGCTACCTCTAAATTCCATTGAATTCTCAGATATAAAGCAAAATAATGACCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCATGTTCCCTTTTATGACTGGAGGCATTACTGCAGTTGGAAGCTCAATTCTTAATAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCATGTTCCCTTTTATGACTGGAGGCATTACTGCAGTTGGAAGCTCAATTCTTAATAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCTGATAGTATCAAAAAGGAAGATTCCTTATTAATCTGTCAGACTATGTTCCCCCTGAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACATTTTCCCTGTTATCTTGCACTGAATCTTTCCTACTGAACACTTTTTCTGCACTTTTC 1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCTTCTGCCTCAGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCCTGGAGCTGTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAAACCCCTGGAGCTGTCGG 1440
                                                                                                                                                             GTAGGAGAATTCTTCATACTTCCAGGTTTTTGTATAAATTGTTCTGATTGTAACTTTCAGT
                                                                                                                                                                                                                                                           ATTTTAAAGTGGAAATTATCTTGAAAACCATTTATTATTCACTTACAGATTCTTTCAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACATTTTCCCTGTTATCTTGCACTGAATCTTTCCTACTGAACACTTTTTCTGCACTTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTAACCTGACAGTTGCAGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCTTCTGCCTCAGAAATG
TCTCAATTATGGTATCTGGATAATAACTTACAGTTGGTACAGAATTCTGATACATGCTGT
                                                                                                                                                                                                                                ATTTTAAAGTGGAAATTATCTTGAAAACCATTTATTATTCACTTACAGATTCTTTCAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1380
                                                                                        2400
                                                                                                                                                                                2340
                                                                                                                                                                                                                                2280
                                                                                                                                                                                                                                                                                                                         2220
                                                                                                                                                                                                                                                                                                                                                                    2220
                                                                                                                                                                                                                                                                                                                                                                                                                 2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                          2160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1560
  2460
```

**১** ৪ ১

밁

8 8 8 8 8 8 8

밁

음 성 음 성 음 성

Ś

밁

8

g

유

8 8 8 8 8 8 8 8 8

밁

```
Sequence 4370, Application US/09721588
GENERAL INFORMATION:
APPLICANT: Gearing, David P.
APPLICANT: Holtzman, Douglas A.
APPLICANT: Willeval, Jean-Luc
TITLE OF INVENTION: NOVEL NUCLEIC ACID MOLECULES ANI
TITLE OF INVENTION: THEREFOR
FILE REFERENCE: 1600.2046-001
CURRENT APPLICATION NUMBER: US/09/721,588
CURRENT FILING DATE: 2000-11-22
PRIOR APPLICATION NUMBER: 60/167,381
PRIOR FILING DATE: 1999-11-24
NUMBER OF SEQ ID NOS: 5410
SOFTWARE: FRASTED TO NOS: 5410
                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                              片
                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                         片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 4
US-09-721-588-4370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                      S
                                                                       밁
                                                                                                S
                                                                                                                                             片
                                                                                                                                                                               Ş
                                                                                                                                                                                                                    片
                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; ORGANISM: Homo sapiens US-09-721-588-4370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 49.6%; Score 1298; DB 32; Length Best Local Similarity 100:0%; Pred. No. 6.7e-271; Matches 1298; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           576
                                                                                                                                               456
                                                                                                                                                                                                                                                                                            336
                                                                                                                                                                                                                                                                                                                              646
                                                                                                                                                                                                                                                                                                                                                                    276
                                                                                                                                                                                                                                                        706
GCCGCCGCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGC
                                                                                                                                                                                                                                                                                                                                                                                     GCTGACGTGCATCCTTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACTTCCTCTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCCTCATCAATATCCGCC
                                                                                                                                                                                                                                                                                                                                                                  GGCTGACGTGCATCGTTTCCCTTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                           TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GACATACATGAACCTGGAAATATTGTGCTAAGGAAAATAAGCCAGACGCCAAACAATATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GACATACATGAACCTGGAAATATTGTGCTAAGGAAAATAAGCCAGACGCCAAACAATATT 2520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACT
                                                                                            TGCTGAGCGCCATCAGCACCGAGCGCTGCCCTGTCCCATCCTGTGGCCCATCTGGTACCACT
                                                                                                                                                                                 ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCCTACTTTATAGGCCTAAGCA
                                                                                                                                                                                                                                                                                          TGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCG
                                                                                                                                                                                                                                                                                                             TGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1453;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2580
                                       945
                                                                           575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2460
                                                                                                             885
                                                                                                                                                  515
                                                                                                                                                                                                                          455
                                                                                                                                                                                                                                                          765
                                                                                                                                                                                                                                                                                                                                                                                                       645
   635
                                                                                                                                                                                                                                                                                              395
                                                                                                                                                                                                                                                                                                                                705
                                                                                                                                                                                                                                                                                                                                                                    335
                                                                                                                                                                                                                                                                                                                                                                                                                                           275
```

£., 48. 1

```
RESULT 5
US-09-634-754-740
; Sequence 740, Application US/09634754
; GENERAL INFORMATION:
APPLICANT: Lal, Preeti
APPLICANT: Au-Young, Janice
APPLICANT: Guegler, Karl J.
APPLICANT: Baughn, Mariah R.
APPLICANT: Baughn, Mariah R.
APPLICANT: Shah, Purvi
TITLE OF INVENTION: DETECTING EXPRESSION OF FILE REFERENCE: PA-0017 US
CURRENT APPLICATION NUMBER: US/09/634,754
; CURRENT APPLICATION OF SEQ ID NOS:
UMMBER OF SEQ ID NOS:
SOFTMARE: PERL Program
                                                                                                                                                                                                                                                                                                                                                                                 1606
                                                                                                                                                                                                                                                                                                                                                                                                            1236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1116
                                                                                                                                                                                                                                                                                                                                                       1296
                                                                                                                                                                                                                                                                                                                                                                                                                                      1546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      946
                                                                                                                                                                                                                                                       TTTTCTGCACTTTTCATTGTAATAAAAGGAGTTGCTGT 1763
                                                                                                                                                                                                                                                                                                                                                    GACAGTIGCAGTITTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGATTCTC 1665
                                                                                                                                                                                                                                                                                                                                                                                                           CCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACA 1485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCCTCAGGAAA 1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGGAGCTGGTTCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTGGGTCCAGCCTGGTCCTGCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTGGGTCCAGCCTGGTCCTGCTCGGTCAGGATTCTCTGTGGATCCCCGGAAGATGCCCGCTGA 1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTTTCTGCACTTTTCATTGTAATAAAAGGAGTTGCTGT 1453
                                                                                                                                                                                                                                                                                                                CTTGATATTACCAATACATTTTCCCTGTTATCTTGCACTGAATCTTTCCTACTGAACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAA
                                                                      OF GENES
                                                                      ENCODING SECRETED
                                                                      PROTEINS
                                                                                                                                                                                                                                                                                                                        1725
                                                                                                                                                                                                                                                                                                                                                                                                                                      1605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1005
                                                               ঠ
              á
                                          밁
                                                                                               밁
                                                                                                                   δ
                                                                                                                                                     밁
                                                                                                                                                                               S
                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-634-754-740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA
ORGANISM: Homo sapiens
PEATURE:
NAME/KEY: unsure
LOCATION: 287, 299, 301, 305, 325
NAME/KEY: unsure
LOCATION: 395, 399, 407
OTHER INFORMATION: a or g or c or
NAME/KEY: misc feature
OTHER INFORMATION: Incyte ID No:
PUBLICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 43.8
Best Local Similarity 100.
Matches 1147; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID NO 740
LENGTH: 1557
                 1546
                                           1131
                                                                     1486
                                                                                                 1071
                                                                                                                         1426
                                                                                                                                                        1011
                                                                                                                                                                                  1366
                                                                                                                                                                                                                                       1306
                                                                                                                                                                                                                                                                                                                                                    1186
                                                                                                                                                                                                                                                                                                                                                                                                           1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1066
                                                                                                                                                                                                                                                                                              1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1006
                                                                                                                                                                                                            951
                                                                                                                                                                                                                                                                   891
                                                                                                                                                                                                                                                                                                                        831
                                                                                                                                                                                                                                                                                                                                                                                 771
                                                                                                                                                                                                                                                                                                                                                                                                                                      711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               766 ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCA
                                                                                                                                                                                                                                                                 GTGGGTCCAGCCTGGTCCTGCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGGCTGA 1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCA
TCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTAACCT 1605
                                                           GGACTTTGAGAGCCAATGCTGCCCTGCCACCCTTGACAATTATATGTGCATTTTTCTTAGCCT
                                                                                                 CCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACA
                                                                                                               CCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACA 1485
                                                                                                                                                     AGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCCTTCCTCAGGAAA 1425
                                                                                                                                                                                                            ACTICITCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC
                                                                                                                                                                                                                            ACTICITCGIGGGCICCTTTAGGCAGCGICAAAATAGGCAGAACCIGAAGCIGGTICICC 1365
                                                                                                                                                                                                                                                                                                                                        TIGGCATICAGIGGGCCCIGIITICCAGGAICCACCIGGAITGGAAAGICITATITIGIC 1245
                                                                                                                                                                                                                                                                                                                                                                                               CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGGCCTGCCCT 1189
                                                                                                                                                                                                                                                                                                                                                                                                                                      GTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCGGAGTATCCTGGAGTGGATTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCGCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCGCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGC
                                           GGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCT
                                                                                                                                                                                                                                                                                                                          TTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTC
                                                                                                                                                                                                                                                                                                                                                                                 CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        43.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               No:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 1147; DB 27;
Pred. No. 2.5e-238;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  325,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1909132CT1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŗ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  329-330,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           unknown,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  350-351, 361,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                          1190
                                                                      1545
                                                                                                  1130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             885
                                                                                                                                                        1070
                                                                                                                                                                                                                                                                                              1305
                                                                                                                                                                                                                                                                                                                                                                                  830
                                                                                                                                                                                                                                                                                                                                                                                                                                        770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        470
                                                                                                                                                                                                               1010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1065
                                                                                                                                                                                                                                                                      950
                                                                                                                                                                                                                                                                                                                           990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      945
```

र् 문 र् 밁 ঠ 음 중 밁 ફ 밁 S 밁 S 밁 श् 밁 8 밁 Ş 밁 ঠ 밁 8 밁 ð 맑

1551 CAATTCT 7 34-754D-740	Db RESULT US-09-6	OY 826 TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCATCTGGTACCACT 885	67
1910 A. STILL C. L. SAMANICA STILL C. C. L. L. L. A. SANCIS SANCIS STATES CONTROL TO SANCIS SANCIS CONTROL TO SANCIS CONTROL C	ଟ ନି ସ	QY 766 ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCA 825	
	S & S		
1726 TTTTCTGCACTTTTCATTGTÄATAAAAGGAGTTGCTGTCCACAACCCTAAAACTCTTCTT	D Q	NAME/KEY: misc_feature ; NAME/KEY: misc_feature ; OTHER INFORMATION: Incyte ID No: 1909132CT1 ; PUBLICATION INFORMATION: INFORMATION: INFORMATION:	
1666 CTTGATATTACCAATACATTTTCCCTGTTATCTTGCACTGAATCTTTCCTACTGAACACT	g Q		
1606 GACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGATTCTC		) OKCAMILEM: HOMO MADIENS ; FEATURE: ; NAME/KEY: unsure ; LOCATION: 287, 299, 301, 305, 325, 329-330, 350-351, 361, 366, 371, 377 ; ECCATION: 287, 299, 301, 305, 325, 329-330, 350-351, 361, 366, 371, 377	
1546 TCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTAACCT	Qy db	SEQ ID NO TENGTH: 1	
1486 GGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCT	B &		
1426 CCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACA	Qy	APPLICANT: APPLICANT: TITLE OF 1	
1366 AGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAA	Qγ	GENERAL INFOR APPLICANT: I APPLICANT:	
1306 ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC	Qy	ESULT 6 S-09-634-754C-	
1246 ATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTT	Oy Db	QY 1906 CAATTCT 1912 	
1186 TIGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTC	Qy	OY 1846 ATGTTCCCCTGAAAATCATGTTCCCTTTTATGACTGGAGGCATTACTGCAGTTGGAAGCT 1905	
1126 CCAGGCTGTACGTGACCATCCTCCACAGTGCTGGTCTTCCTCCTCTGTGGGCCTGCCCT	Qy dd	Qy 1786 TATACTTGTTTCCTACCTGATAGTATCAAAAGGAAGATTCCTTATTAATCTGTCAGACT 1845	
1066 GTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGA	å Q	Qy 1726 TTTTCTGCACTTTTCATTGTAATAAAAGGAGTTGCTGTCCACAAACCCCTAAAACTCTTCTT 1785	
1006 GGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCT	Qy Db	Qy 1666 CTTGATATTACCAATACATTTTCCCTGTTATCTTGCACTGAATCTTTCCTACTGAACACT 1725	
946 TGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTT	QY Db	Qy 1606 GACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGATTCTC 1665	
531 GCCGCCGCCCAGATACCTGTCATCGGTCATGTGTGTGTCCTGCTCTGGGCCCTGTCCCTGC	Db	Db 1191 TCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTAACCT 1250	

```
APPLICANT: La1, Preeti
APPLICANT: La1, Preeti
APPLICANT: La1, Preeti
APPLICANT: La1, Preeti
APPLICANT: Guegler, Karl J.
APPLICANT: Guegler, Karl J.
APPLICANT: Baughn, Mariah R.
APPLICANT: Baughn, Mariah R.
APPLICANT: Shah, Purvi
ITITLE OF INVENTION: DETECTING EXPRESSION OF GENES ENCODING SECRETED PROTEINS
FILE REFERENCE: PA-0017 US
CURRENT APPLICATION NUMBER: US/09/634,754D
CURRENT FILING DATE: 2002-04-22
NUMBER OF SEQ ID NOS: 809
SOFTWARE: PERL Program
SEQ ID NO 740
LENGTH: 1557
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: unsure
LCCATION: 287, 299, 301, 305, 325, 329-330, 350-351, 361, 366, 371, 377
FEATURE:
                                                                                                                                                                                                                                                 8
                    5
                                                밁
                                                                              र्
                                                                                                               문
                                                                                                                                 ঠ
                                                                                                                                                                      В
                                                                                                                                                                                               8
                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity Matches 1147; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 740, Application US/09634754D GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: misc_feature
OTHER INFORMATION: Incyte ID
PUBLICATION INFORMATION:
-09-634-754D-740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: unsure LOCATION: 395, 399, 4 OTHER INFORMATION: a
                          1306
                                                                                   1246
                                                                                                                                         1186
                                                                                                                                                                                                  1126
                                                                                                                                                                                                                                                         1066
                                                                                                                                                                                                                                                                                                                1006
                                                                                                                831
                                                                                                                                                                                                                                                                                     651
                                                                                                                                                                                                                                                                                                                                            591
                                                                                                                                                                         771
                                                                                                                                                                                                                              711
                                                                                                                                                                                                                                                                                                                                                                      946
                                                                                                                                                                                                                                                                                                                                                                                                    531
                                                                                                                                                                                                                                                                                                                                                                                                                                                           471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    766 ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCA
                    ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC 1365
                                                                                                                                         TTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTC 1245
                                                                                                                                                                                       CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCTCTGTGGCCTGCCCT 1185
                                                                                                                                                                                                                                              GTGGGTCCAGCCTGGTCCTGCTCGGTCAGGATTCTCTGTGGATCCCCGGAAGATGCCCGCTGA 1125
                                                                                                                                                                                                                                                                                                    GGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCT
                                                                                                                                                                                                                                                                                                                                            TGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTT
                                                                                                                                                                                                                                                                                                                                                              TGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                            GCCGCCGCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCA
                                                                                                                                                                                                                              GTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGA
                                                                                                                                                                                                                                                                                     ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC 1010
                                                                                 ATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         43.8%; Score 1147; DB 27; ilarity 100.0%; Pred. No. 2.5e-238; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     407
a or g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               No: 1909132CT1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       t, unknown,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENES ENCODING SECRETED PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        or other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1557;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                    1305
                                                                                                                                                                                                                                                                                                                                                                        1005
                                                                                                                                                                                                                                                                                                                                                                                                    590
                                                                                                                                                                      830
                                                                                                                                                                                                                              770
                                                                                                                                                                                                                                                                                     710
                                                                                                                                                                                                                                                                                                                1065
                                                                                                                                                                                                                                                                                                                                            650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                825
                                                        950
                                                                                                                                                                                                                                                                                                                                                                                                                                                           530
                                                                                                                890
                                                                                                                                                                                                                                                                                                                                                                                                                               945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                    RESULT 8
US-10-745-444-740
is-sequence 740, Application US/10745444
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                       PEATURE: Unsure
NAME/KEY: Unsure
LOCATION: 395, 399, 407
OTHER INFORMATION: a or g or c or t, unknow
FEATURE:
NAME/KEY: misc feature
OTHER INFORMATION: Incyte ID No: 1909132CT1
                                                                                                                           FEATURE:
NAME/KEY: unsure
LOCATION: 287, 299,
                                                                                                                                                                   ORGANISM: Homo sapiens
                                                                                                                                                                                    TYPE: DNA
                                                                                                                                                                                                  LENGTH: 1557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1666
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAATTCT 1912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAATTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1557
                                                                                                                            301,
                                                                                                                            305,
                                                                                                                            325,
                                                                     unknown,
```

```
; PUBLICATION INFORMATION US-10-745-444-740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Lal, Preeti
APPLICANT: Au-Young, Janice
APPLICANT: Guegler, Karl J.
APPLICANT: Baughn, Mariah R.
APPLICANT: Baughn, Mariah R.
APPLICANT: Shah, Purvi
TITLE OF INVENTION: DETECTING EXPRESSION OF GENES ENCODING SECRETED PROTEINS
FILE REFERENCE: PA-0017 US
CURRENT APPLICATION NUMBER: US/10/745,444
CURRENT FILING DATE: 2003-12-23
NUMBER OF SEQ ID NOS: 809
SOFTWARE: PERL Program
SQFIMARE: PERL Program
SEQ ID NO 740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAA 1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGTTCCCCTGAAAATCATGTTCCCTTTTATGACTGGAGGCATTACTGCAGTTGGAAGCT 1905
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TATACTTGTTTCCTACCTGATAGTATCAAAAAGGAAGATTCCTTATTAATCTGTCAGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTTTCTGCACTTTTCATTGTAATAAAAGGAGTTGCTGCTCCACAACCCCTAAAACTCTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTGATATTACCAATACATTTTCCCCTGTTATCTTGCACTGAATCTTTCCTACTGAACACT 1370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTGATATTACCAATACATTTTCCCTGTTATCTTGCACTGAATCTTTCCCTACTGAACACT 1725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGATTCTC 1310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTTGGATTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCT 1545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACA 1485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGAGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TATACTTGTTTCCTACCTGATAGTATCAAAAAGGAAGATTCCTTATTAATCTGTCAGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTAACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTAACCT
                                                                                                                                                                                                                                                                                         329-330, 350-351, 361, 366, 371,
                                                                                                                                                                  ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1665
```

```
멍
                                                                         8
                                                                                                     В
                                                                                                                          S
                                                                                                                                                     В
                                                                                                                                                                               5
                                                                                                                                                                                                                 유
                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                              유
8
                                                                                                                                                                                                                                                                                                                                                                                                                        Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
밁
                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 43.8%; Score 1147; DB 61; Best Local Similarity 100.0%; Pred. No. 2.5e-238; Matches 1147; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                           1011
                                                                                                                                                                                                                                            1486
                                                                                                                                                                                                                                                                                                                                                    1366
                                                                                                                                                                                                                                                                                                                                                                                                        1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1066
                                                                                                                                                                                                                                                                                                                                                                                                                                   891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               826
                                                                                                                                                                                                                                                                     GGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCT 1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCGCCGCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCCTACTTTATAGGCCTAAGCA
                                                                                                                                                            AGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAA 1425
                                                                                                                                                                                                                                                                                                                                                                                             ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC 1365
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGTGCATCTAGTTTCCATTTTCCTGTCCGCCTCTTAACAGCAGTGCCAACCCCATCATTT 1305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GIGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGA 770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGGGTCCAGCCTGGTCCTGCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGA 1125
            TTTTCTGCACTTTTCATTGTAATAAAAGGAGTTGCTGTCCACAACCCTAAAACTCTTCTT
                                                                                                                       GACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGATTCTC
                                                                                                                                                                                                                               GGACTITGAGAGCAATGCTGCCCTGGCCACCCTTGACAATTATATGCATTTTTCTTAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                    ATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TIGGCATICAGIGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGICTTATTTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCCTGCCCT 1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGCGGAGTATCCTGGAGTGGACTTCTGTGACTTCTGTTTAGTGGTGCTGATTCTGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTT 1005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACT
                                                                  CTTGATATTACCAATACATTTTCCCTGTTATCTTGCACTGAATCTTTCCTACTGAACACT
                                                                                                         GACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGATTCTC
                                                                                                                                                                                                                   GGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCT
                                                                                                                                                                                                                                                                                                                           AGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAA
                                                                                                                                                                                                                                                                                                                                                                                ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC
                                                    CTTGATATTACCAATACATTTTCCCTGTTATCTTGCACTGAATCTTTCCTACTGAACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1557;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                 1485
                                                                                                                                                                                                                                                                                                                            1070
                                                                                                                                                                                                                 1190
                                                                                                                                                                                                                                                                       1130
                                                                                                        1310
                                                                                                                                                               1250
                                                                                                                                                                                                                                                                                                                                                                               1010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         470
                                                    1370
                                                                                                                                    1665
                                                                                                                                                                                        1605
                                                                                                                                                                                                                                            1545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   825
                                                                                                                                                                                                                                                                                                                                                                                                                                    950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
```

```
SOFTWARE: PERL Program
SEQ ID NO 55
LENGTH: 1146
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: misc feature
OTHER INFORMATION: Incyte ID No: 338589.1
US-09-532-367-55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 55, Application US/09532367
GENERAL INFORMATION:
APPLICANT: Hodgson, David M.
APPLICANT: Lincoln, Stephen E.
APPLICANT: Russo, Frank D.
APPLICANT: Spiro, Peter A.
APPLICANT: Banville, Steve C.
APPLICANT: Barville, Steve C.
APPLICANT: Dufour, Gerard E.
APPLICANT: Cohen, Howard J.
APPLICANT: Rosen, Bruce
APPLICANT: Chalup, Michael S.
APPLICANT: Hilman, Jennifer L.
APPLICANT: Jones, Anissa L.
APPLICANT: Yu, Jimmy Y.
APPLICANT: Greenawalt, Lila B.
APPLICANT: Greenawalt, Lila B.
APPLICANT: Panzer, Scott R.
APPLICANT: Panzer, Scott R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                               S
                                                                                                                                                    맑
                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 9
US-09-532-367-55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                        S
                                                                  밁
                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 43.8%; Score 1146; DB 23; Length Best Local Similarity 100.0%; Pred. No. 4.5e-238; Matches 1146; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Roseberry, Ann M.
APPLICANT: Wright, Rachel J.
TITLE OF INVENTION: RECEPTOR MOLECULES
FILE REFERENCE: PT-0005 US
CURRENT APPLICATION NUMBER: US/09/532,367
CURRENT FILING DATE: 2000-03-21
EARLIER APPLICATION NUMBER: 60/125,366; 60/126,218; 60/126,247; 60/126,590; 60/125,79:
EARLIER APPLICATION NUMBER: 60/125,366; 60/126,218; 60/126,247; 60/126,590; 60/125,79:
EARLIER FILING DATE: 1999-03-19; 1999-03-25; 1999-03-24; 1999-03-26; 1999-03-23;
NUMBER OF SEQ ID NOS: 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1846
                                                                                                            942
                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                     762 CGCCATCCCAAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5 CAATTCT 1912
||||||
1 CAATTCT 1557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TATACTTGTTTCCTACCTGATAGTATCAAAAAGGAAGATTCCTTATTAATCTGTCAGACT 1845
                                                                                                                                                    CACTGCCGCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCC 941
AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC 881
                                                                                                                                                                                                                                                                                                                               CGCCATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTA
                                                                  CTGCTGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT
                                                                                                 CTGCTGCGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCT 1001
                                                                                                                                                                                                                                          AGCATGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATGITCCCCTGAAAATCATGITCCCTTTTATGACTGGAGGCATTACTGCAGTTGGAAGCT 1550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGTTCCCCTGAAAATCATGTTCCCTTTTATGACTGGAGGCATTACTGCAGTTGGAAGCT 1905
                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                   Gape
                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                 60
                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                   0
```

```
RESULT 10
US-09-867-570-3
US-09-867-570-3
(Sequence 3, Application US/09867570
(SERERAL INFORMATION:
(APPLICANT: WEI, Ming-Hui et al.
(TITLE OF INVENTION: ISOLATED HUMAN G-PROTEIN COUPLED TITLE OF INVENTION: RECEPTORS, NUCLEIC ACID MOLECULES
(TITLE OF INVENTION: PROTEINS, AND USES THEREOF
(FILE REFERENCE: CL000900-CIP
(CURRENT APPLICATION NUMBER: US/09/867,570
                                                                                                                                                                                                                                                               1081
                                                                                                                                                                                                                                                                                               1842
                                                                                                                                                                                                                                                                                                                              1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1062
                                                                                                                                                                                                                                                                                                                                                                                            961
                                                                                                                                                                                                                                                                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                 AGCTCA
                                                                                                                                                                                                                                                              GACTATGTTCCCCTGAAAATCATGTTCCCTTTTATGACTGGAGGCATTACTGCAGTTGGA 1140
                                                                                                                                                                                                                                                                                GACTATGTTCCCCTGAAAATCATGTTCCCTTTTATGACTGGAGGCATTACTGCAGTTGGA 1901
                                                                                                                                                                                                                                                                                                                                             TCTTTATACTTGTTTCCTACCTGATAGTATCAAAAAGGAAGATTCCTTATTAATCTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                              CACTTTTTCTGCACTTTTCATTGTAATAAAAGGAGTTGCTGTCCACAACCCCTAAAACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCTCCTTGATATTACCAATACATTTTCCCTGTTATCTTGCACTGAATCTTTCCTACTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCTTCTGCCTCAGAAATGTCTCAGTGGTCCCCTCAAGGTCTTCGAATAGATGTTTATCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCTTCTGCCTCAGAAATGTCTCAGTGGTCCCCTCAAGGTCTTCGAATAGATGTTTTATCTA 1601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACAGGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTA 1541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAAACCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCA 1481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCCAGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTTACTTCCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGTCATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCTCTGTGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGACCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCTGTGGGTCCAGCCTGGTCCTGCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCTGTGGGTCCAGCCTGGTCCTGCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCG
                                                                                                                                                                                                                               AGCTCA
                                                                                                                                                                                                                                                                                                                              TCTTTATACTTGTTTCCTACCTGATAGTATCAAAAAGGAAGATTCCTTATTAATCTGTCA
                                                                                                                                                                                                                                                                                                                                                                                              CACTTTTTCTGCACTTTTCATTGTAATAAAAGGAGTTGCTGTCCACAACCCCTAAAACTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCTTTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCTCCTTGATATTACCAATACATTTTCCCTGTTATCTTGCACTGAATCTTTCCTACTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTTTGGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTT
                                                                                                                                                                                                                              1907
                                                    ENCODING
                                                    HUMAN
                                                    GPCR
                                                                                                                                                                                                                                                                                                                                                                                              1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1421
                                                                                                                                                                                                                                                                                                                               1080
                                                                                                                                                                                                                                                                                                                                                              1841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                              960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT FILING DATE: 2001-05-31
PRIOR APPLICATION NUMBER: 09/695,045
PRIOR FILING DATE: 2000-10-25
NUMBER OF SEQ ID NOS: 4
SOFTWARE: FastSEQ for Windows Version 4.
SOFTWARE: FastSEQ for Windows Version 4.
SEQ ID NO 3
LENGTH: 8622
TYPE: DNA
ORGANISM: Human
US-09-867-570-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                  Ş
                                           밁
                                                                          S
                                                                                                                뭐
                                                                                                                                        δ
                                                                                                                                                                          밁
                                                                                                                                                                                                         S
                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                             뭐
                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                           멍
                                                                                                                                                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 1101;
                                                                                                                                                                                                                                                8102
                     1306
                                                    8282
                                                                                  1246
                                                                                                                  8222
                                                                                                                                                1186
                                                                                                                                                                                8162
                                                                                                                                                                                                                1126
                                                                                                                                                                                                                                                                               1066
                                                                                                                                                                                                                                                                                                                8042
                                                                                                                                                                                                                                                                                                                                              1006
                                                                                                                                                                                                                                                                                                                                                                              7982
                                                                                                                                                                                                                                                                                                                                                                                                                                              7922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7562
                                                                                                                                                                                                                                                                                                                                                                                                           946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      466 GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCCTGAGCTTCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC
   ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC
                                                                   ATGIGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCCATCATTT
                                                                                                                                                                                CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCT
                                                                                                                                                                                                    CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCT
                                                                                                                                                                                                                                                GTGGGTCCAGCCTGGTCGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGA
                                                                                                                                                                                                                                                                      GTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCCGGAAGATGCCGCTGA
                                                                                                                                                                                                                                                                                                                                             TGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCGCCGCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCGCCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCCTACTTTATAGGCCTAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACTTCCTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACTTCCTCTTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TEGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCG
                                                                                                                                   TIGGCATICAGIGGGCCCIGITITICCAGGAICCACCIGGATIGGAAAGICITATITITGIC
                                                    ATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTT
                                                                                                                    TTGGCATTCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTC
                                                                                                                                                                                                                                                                                                                                                                              TGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   42.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 1101; DB 36; Pred. No. 1.3e-228;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8622;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       525
                                                                                    1305
                                                                                                                                                    1245
                                                                                                                                                                                    8221
                                                                                                                                                                                                                  1185
                                                                                                                                                                                                                                                    8161
                                                                                                                                                                                                                                                                                  1125
                                                                                                                                                                                                                                                                                                                  8101
                                                                                                                                                                                                                                                                                                                                                  1065
                                                                                                                                                                                                                                                                                                                                                                                                              1005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7561
```

밁

S 밁 5 망

유 망

1365 8341 8281

8041

7981

7801

7741 765

0

중 유

중 유

ঠ 밁 S 밁 S В S **경** 음

S 문 S 문 र् 밁 ð 밁 8 맑

ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC

```
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Beasley, Ellen
TITLE OF INVENTION: ISOLATED HUMAN G-PROTEIN COUPLED
TITLE OF INVENTION: RECEPTORS, NUCLEIC ACID MOLECULES ENCODING HUMAN GPCR
TITLE OF INVENTION: RECEPTORS, AND USES THEREOF
TITLE OF INVENTION: PROTEINS, AND USES THEREOF
TITLE OF INVENTION: NUMBER: US/60/201,715
CURRENT APPLICATION NUMBER: US/60/201,715
CURRENT FILING DATE: 2000-05-03
NUMBER OF SEQ ID NO 47
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 47
LENGTH: 3988
TYPE: DNA
ORGANISM: HUMAN
US-60-201-715-47
                                                                                                    ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                 S
                                                                        밁
                                                                                                                                           밁
                                                                                                                                                                         $
                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                               श्
                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 11
US-60-201-715-47/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              유 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 41.9%; Score 1098; DB 85; Best Local Similarity 100.0%; Pred. No. 7.1e-228; Matches 1098; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                             1053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8462
   753
                                   988
                                                                                                          826
                                                                                                                                               873
                                                                                                                                                                                                                  933
                                                                                                                                                                                                                                                     706
                                                                                                                                                                                                                                                                                        993
                                                                                                                                                                                                                                                                                                                            646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     526
                                                                        813
                                                                                                                                                                                766
                                                                                                                                                                                                                                                                                                                                                           GGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC
                    GCCGCCGCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTCTGGGCCCTGTCCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                  TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCTGCCTCAGAAATGTCTCAG 1566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTTCTTAGCCT
                                                                                                                                                              ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCA
                                                                                                                                                                                                                                    ACTTCCTCTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCC
                                                                                                                                                                                                                                                                                                                                                                                  GGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACA 1485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAA 1425
                                                                                       TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACT
                                                                                                                                                                                                                                                                                                             TGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAA
                                                                                                                                             ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCA
                                                                                                                                                                                                                    ACTTCCTCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCC
                                                                                                                                                                                                                                                                                        TGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 3988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                    1054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8521
                                     945
                                                                                                          885
                                                                                                                                             814
                                                                                                                                                                              825
                                                                                                                                                                                                                  874
                                                                                                                                                                                                                                                     765
                                                                                                                                                                                                                                                                                        934
                                                                                                                                                                                                                                                                                                                            705
                                                                                                                                                                                                                                                                                                                                                           994
                                                                                                                                                                                                                                                                                                                                                                                                645
 694
                                                                        754
                                                                               Sequence 1273, Application US/10292798

GENERAL INFORMATION:
APPLICANT: SUWA, MAKIKO
APPLICANT: ASA1, KYOSHI
APPLICANT: ASA1, KYOSHI
APPLICANT: AKIYAMA, YUTAKA
APPLICANT: AKIYAMA, YUTAKA
APPLICANT: AKIYAMA, YUTAKA
CURRENT APPLICATION: GUANOSINE TRIPHOSPHATE-BINDING PROTEIN COUPLED RECEPTORS
FILE REFERENCE: 084315/166
CURRENT APPLICATION NUMBER: US/10/292,798
CURRENT APPLICATION NUMBER: 10/017,161
PRIOR APPLICATION NUMBER: 10/017,161
PRIOR APPLICATION NUMBER: JP 2001-246789
PRIOR FILING DATE: 2001-06-18
NUMBER OF SEQ ID NOS: 2070
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 1273
LENGTH: 1369
TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 12
US-10-292-798-1273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
FEATURE: (1)..(1369) FEATURE:
                                                    FEATURE:
LOCATION: source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1546 TCTGCCTCAGAAATGTCT 1563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGGAAGATGCCGGTGA 1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTTCTTAGCCT 1545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCT 1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGGTTCTCT 1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATGTGCATCTAGTTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTT 1305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCTGCCTCAGAAATGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACA 1485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAA 1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TIGGCATICAGIGGCCCIGIIIICCAGGAICCACCIGGAIIGGAAAGICIIAIIIIIII 1245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTGGGTCCAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTTAGTGGTGCTGATTCTGTTT 1005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 634
```

```
S
                                                                                                                                                                                 ঠ
                                         ई
                                                                 밁
                                                                                    ક
                                                                                                          밁
                                                                                                                                                               밁
                                                                                                                                                                                                              밁
                                                                                                                                                                                                                              ક
                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                            ঠ
                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                            ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; NAME/KEY: CDS
; LOCATION: (201)..(1169)
US-10-292-798-1273
                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 41.7%;
Best Local Similarity 99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches 1193;
1426
                     1075
                                                                     1015
                                                                                                                                                                                        1186
                                                                                                                                                                                                                                      1126
                                                                                                                                           1246
                                                                                                                                                                                                                                                                                     1066
                                                                                                                                                                                                                                                                                                                                    1006
                                                                                                                                                                 895
                                                                                                                                                                                                               835
                                                                                                                                                                                                                                                                                                              715
                                                                                                                                                                                                                                                                                                                                                             655
                                                                                                                                                                                                                                                                                                                                                                                  946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                988
                                                                                                                                                                                                                                                                                                                                                                                                                                                         535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 526 TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGGCTCTGGCTCC
CCCTGGAGCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACA 1485
                                  AGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAA
                                                                                  ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC
                                                                                                                                 ATGTGCATCTAGTTTCCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTT
                                                                                                                                                                                    TIGGCATTCAGIGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTC
                                                                                                                                                                                                               CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCTCTGTGGCCTGCCCT
                                                                                                                                                                                                                                      CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCT
                                                                                                                                                                                                                                                             GTGGGTCCAGCCTGGTCGTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGA
                                                                                                                                                                                                                                                                                      GTGGGTCCAGCCTGGTCCTGCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGA
                                                                                                                                                                                                                                                                                                                                     TGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTT
                                                                                                                                                                                                                                                                                                                                                                                                          GCCGCCGCCCAGATACCTGTCATCAGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                       GCCGCCGCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACTTCCTCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACTTCCTCTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG
                      AGAGGGCTCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAA
                                                                    ACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCC
                                                                                                                    ATGTGCATCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCCATCATTT
                                                                                                                                                                                                                                                                                                                                                             TGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTAATTCTGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 1093; DB 50;
Pred. No. 1.2e-226;
0: Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1369;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                            1425
                                                                                                                                          1305
                                                                                                                                                                                         1245
                                                                                                                                                                                                                                       1185
                                                                                                                                                                                                                                                                                     1125
                                                                                                                                                                                                                                                                                                                                                                                   1005
                      1134
                                                                     1074
                                                                                          1365
                                                                                                                  1014
                                                                                                                                                                                                                                                                                                                                                                                                                                   945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          525
                                                                                                                                                                 954
                                                                                                                                                                                                                894
                                                                                                                                                                                                                                                              834
                                                                                                                                                                                                                                                                                                                                     1065
                                                                                                                                                                                                                                                                                                                                                                                                            654
                                                                                                                                                                                                                                                                                                                                                                                                                                                         594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 234
                                                                                                                                                                                                                                                                                                              774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 B
                             ð
                                                                                                                         Ś
                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
           밁
                                                       片
                                                                           5
                                                                                                     밁
                                                                                                                                                                      S
                                                                                                                                                                                                밁
                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        당
```

```
APPLICANT: Simon, Melvin
APPLICANT: Han, Sang-kyou
ITITLE OF INVENTION: PAIN SIGNALING MOLECULES
FILE REFERENCE: CALTE.004VPC
CURRENT APPLICATION NUMBER: PCT/US01/14519
CURRENT FILING DATE: 2001-05-04
PRIOR APPLICATION NUMBER: US 60/222,344
PRIOR PILING DATE: 2000-08-01
PRIOR APPLICATION NUMBER: US 60/202,027
PRIOR PILING DATE: 2000-05-04
PRIOR PILING DATE: 2000-01-03
PRIOR PILING DATE: 2000-05-04
PRIOR PILING DATE: 2000-01-03
PRIOR FILING DATE: 2000-01-03
PRIOR FILING DATE: 2001-04-19
PRIOR P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 13
PCT-US01-14519-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; NAME/KEY: CDS
; LOCATION: (332)...(1297)
PCT-US01-14519-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 30, Application PC/TUS0114519 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches 1088;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA
ORGANISM: Homo:
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: California Institute of Technology APPLICANT: Anderson, David J. APPLICANT: Dong, Xinzhong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1606
553
                                                                                                                                           493
                                                                                                                                                                                                               653
                                                                                                                                                                                                                                                                                      433
                                                                                                                                                                                                                                                                                                                                                              593
                                                                                                                                                                                                                                                                                                                                                                                                                                     373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGA 1660
                                                                                                                                                                                 CCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCT
                                                                                                                                                                                                                                                                                                                            GTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGTGCTCTGGCTCCTGGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCTGCCTCAGAAATGTCTCAGTGGTCCCTCAAGGTCTTCGAATAGATGTTTATCTAACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGACTTTGAGAGCCAATGCTCCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGGCCATCCCAT 772
                                                                                                                                                                                                                                                                                      GTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                     AATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTACAATGTTTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGACTTTGAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Zylka, Mark
Simon, Melvin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     41.6%; Score 1088; DB 1; Length 1400; ilarity 100.0%; Pred. No. 1.4e-225; Conservative 0; Mismatches 0; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1194
                                                                                                                                                                                                                                                                                          492
                                                                                                                                                                                                                                                                                                                                                              652
                                                                                                                                                                                                                                                                                                                                                                                                                                     432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1314
   612
                                                                                                                                               552
```

```
APPLICANT: California Institute of Technology
APPLICANT: Anderson, David J.
APPLICANT: Dong, Xinzhong
APPLICANT: Sylka, Mark
APPLICANT: Simon, Melvin
APPLICANT: Simon, Melvin
APPLICANT: Han, Sang-kyou
TITLE OF INVESTION: PAIN SIGNALING MOLECULES
FILE REFERENCE: CALTE.4C10PC
CURRENT APPLICATION NUMBER: PCT/US03/15004
CURRENT FILING DATE: 2003-05-08
PRIOR APPLICATION UMBER: US 10/183,116
PRIOR FILING DATE: 2002-06-26
                                                                                                                                                                   RESULT 14
PCT-US03-15004-30
                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                             망
                                                                                                                                                                                                                                                                               중 음
                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                           ₽
                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                     д
                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       중 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   중 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           뭐
                                                                                                                                           Sequence 30, Application PC/TUS0315004 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1093
                                                                                                                                                                                                                                                                                                                                                                                                                                  1313
                                                                                                                                                                                                                                                                                        1493
                                                                                                                                                                                                                                                                                                                1273
                                                                                                                                                                                                                                                                                                                                                                                    1373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             613
                                                                                                                                                                                                                                                                                                                                                                                                          GTACGTGACCATCCTCCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCTTTGGCAT 1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCCTACTTTATAGGCCTAAGCATGCTGAG
                                                                                                                                                                                                                                         CAGAAATG
                                                                                                                                                                                                                                                                             GAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCTTCTGCCT
                                                                                                                                                                                                                                                                                                                            GCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACAGGACTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCA 1252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGCCTGGTCCTGCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCT 1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AACGICAGATITCATTACAATCGCGIGGCIGGTTITITITAIGIGGGTTCTCTGIGGGTC 1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TATCCTGGAGTGGATGTTCTGTGAGTGTTTAGTGGTGCTGATTCTGTTTGGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGCTGCGGAG
                                                                                                                                                                                                                  CAGAAATG
                                                                                                                                                                                                                                                                 GAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCTTCTGCCT
                                                                                                                                                                                                                                                                                                               GCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCCTGTCAGACAGGACTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCTTTGGCAT 1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCTGTGGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCCAGATACCTGTCATCGGTCATGTGTGTCTGCTCTGGGCCCTGTCCCTGCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                           TCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1400
                                                                                                                                                                                                                                         1560
                                                                                                                                                                                                                                                                                                                                       1492
                                                                                                                                                                                                                                                                                                                                                                                     1432
                                                                                                                                                                                                                                                                                                                                                                                                             1212
                                                                                                                                                                                                                                                                                                                                                                                                                                   1372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1012
                                                                                                                                                                                                                                                                                          1552
                                                                                                                                                                                                                                                                                                                 1332
                                                                                                                                                                                                                                                                                                                                                               1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; NAME/KEY: CDS
; LOCATION: (332)...(1297)
PCT-US03-15004-30
                                                     S
                                                                                 닭
                                                                                                         ঠ
                                                                                                                                                   S
                                                                                                                                                                                                   8
                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ş
              Ś
                                                                                                                                 뭐
                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQ ID NOS: 109
SOFTWARE: PRATSEQ for Windows
SEQ ID NO 30
LENGTH: 1400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 41.6%;
Best Local Similarity 100.0%;
Matches 1088; Conservative C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
ORGANISM: Homo:
FEATURE:
                                                                                     1033
                                                                                                           1193
                                                                                                                                                          1133
                                                             1253
                                                                                                                                                                                                        1073
                                                                                                                                                                                                                                                       1013
                                                                                                                                    973
                                                                                                                                                                                  913
                                                                                                                                                                                                                                853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       473
                                                                                                                                                                                                                                                                               793
                                                                                                                                                                                                                                                                                                     953
                                                                                                                                                                                                                                                                                                                            733
                                                                                                                                                                                                                                                                                                                                                   893
                                                                                                                                                                                                                                                                                                                                                                           673
                                                                                                                                                                                                                                                                                                                                                                                                  833
                                                                                                                                                                                                                                                                                                                                                                                                                        613
                                                                                                                                                                                                                                                                                                                                                                                                                                               773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  373
                                                                                                                                                                                                                                                                            CTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCCTACTTTATAGGCCTAAGCATGCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACC
                                                                                    GTACGTGACCATCCTCACAGTGCTGGTCTTCCTCTCTGTGGCCTGCCCTTTGGCAT 1192
                                                                                                                                                                                               CAGCCTGGTCCTGCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCCGCTGACCAGGCT
                                                                                                                                                                                                                                            AACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGTTCTCTGTGGGTC
                                                                                                                                                                                                                                                                                                                                         CCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGCTGCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AATCAACGGACGTGAGGACACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACC
 CGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGC
                                      TCTAGTTTTCCATTTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCCATCATTTACTTCTT
                                                      TCTAGTTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCCATCATTTACTTT
                                                                                                                                                                                                                                CGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCG
                                                                                                                                                                                                                                                                                                                                                                                         CGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGAC
                                                                                                                                    GTACGTGACCATCCTCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCTTTGGCAT
                                                                                                                                                                                   CAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 1088; DB 2; 1; Pred. No. 1.4e-225; 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                     1032
                                          1152
                                                                                                                                                                                                         1132
                                                                                                                                                                                                                                                       1072
                                                                                                                                                                                                                                                                                                                              792
                  1372
                                                                                                                                                                                   972
                                                                                                                                                                                                                                                                                                                                                     952
                                                                                                                                                                                                                                                                                                                                                                                                                          672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  372
                                                                                                                                                                                                                                 912
                                                                                                                                                                                                                                                                                                                                                                             732
                                                                                                                                                                                                                                                                                                                                                                                                    892
                                                                                                                                                                                                                                                                                                                                                                                                                                                  832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   432
```

	Qy 713 CTTCCTTAGCGGCCACATTATATGTTCGCCGGTTACGCCCTCATCAATATCCGCCATCCCAT 772
	Qy 653 CCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGGGGCGACCTTCCT 712
	Qy 593 GTGCATCGTTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGGCTCCTGGGCTG 652
Search completed: October 30, 2004, 03:30:29 Job time : 9593 secs	Qy         533 AATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGAC 592
Db 1393 CAGAAATG 1400	OY 473 CAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACC 532
1333	Query Match 41.6%; Score 1088; DB 35; Length 1400; Best Local Similarity 100.0%; Pred. No. 1.4e-225; Matches 1088; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
1433 1273	FEATURE: NAME/KEY: CDS LOCATION: (332)(1297) IS-09-849-869A-30
Qy 1373 TCTGCAGGACACGCCTGAGGTGGATGAAGGTGAAGGTGA 	; SEQ ID NO 30 ; LENGTH: 1400 ; TYPE: DNA ; TYPE: DNA ; ORGANISM: Homo sapiens
Qy 1313 CGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTC Db 1153 CGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTC	PRIOR PRIOR NUMBER SOFTWA
Qy 1253 TCTAGTITCCATTTTCCTGTCCGCTCTTAACAGCAGTGCC	PRIOR APPLICATION NUMBER: US 60/202,027  PRIOR FILING DATE: 2000-05-04  PRIOR APPLICATION NUMBER: US 09/704,707  PRIOR FILING DATE: 2000-11-03
Qy 1193 TCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAA	CURRENT APPLICATION NUMBER: US/09/849,869A CURRENT FILING DATE: 2001-05-04 PRIOR APPLICATION NUMBER: US 60/222,344 PRIOR EILING DATE: 2000-08-01
Qy 1133 GTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCCTC	
Qy 1073 CAGCCTGGTCCTGGTGAGGATTCTCTGTGGATCCCGG	GENERAL INFOI APPLICANT: APPLICANT: APPLICANT:
OY 1013 AACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTA	RESULT 15 US-09-849-869A-30 ; Sequence 30, Application US/09849869A
Qy 953 TATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGT	Qy 1553 CAGAAATG 1560          Db 1393 CAGAAATG 1400
733	1333
893	1493 GAGAGCAATGCTGCCTGCCACCCTTGACAATTATATGCATTTTTTTT
QY         833         CGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCC	OY 1433 GCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACAGGACTTT 1492
Qy 773 CTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTT	Qy 1373 TCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGA 1432
	1153 CGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGC

TGAAGCTGGTTCTCCAGAGGGC 1212 TCTGTGGCCTGCCCTTTGGCAT 1192 TATGTGTGGTTCTCTGTGGGTC 1072 GGGCCCTGTCCCTGCTGCGGAG 952 CCATCTGGTACCACTGCCGCCG 892 TCATCAATATCCGCCATCCCAT 612 GGCTTCCTCAGGAAACCCTGGA 1432 |||||||||||||||||||| GGCTTCCTCAGGAAACCCTGGA 1272 TGAAGCTGGTTCTCCAGAGGGC 1372 CCAACCCCATCATTTACTTCTT 1152 CCAACCCCATCATTTACTTCTT 1312 AAGICITATTITGICATGIGCA 1252 |||||||||||||||||||||| AAGICITATTITGICATGIGCA 1092 GTGCTGATTCTGTTTGGTGTGA 1012 TTATAGGCCTAAGCATGCTGAG 672 TTATAGGCCTAAGCATGCTGAG 832 TGCCCTGTCAGACAGGACTTT 1332 CTGCCCTGTCAGACAGGACTTT 1492 FIGUTGATTCTGTTTGGTGTGA 852 ATTTTTCTTAGCCTTCTGCCT 1552 ATTTTTTTAGCCTTCTGCCT 1392

This Page Blank (uspto)

```
Mon Nov
μ
12:58:44 2004
```

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Minimum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Total number of hits satisfying
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Word size :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Scoring table:
                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                   G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Post-processing: Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
      Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             eeq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pending_Patents_NA_New:*

1: /cgn2_6/ptodata/2/pna/PCT_NEW_COMB.seq:*

2: /cgn2_6/ptodata/2/pna/US06_NEW_COMB.seq:*

3: /cgn2_6/ptodata/2/pna/US07_NEW_COMB.seq:*

4: /cgn2_6/ptodata/2/pna/US09_NEW_COMB.seq:*

5: /cgn2_6/ptodata/2/pna/US10_NEW_COMB.seq:*

6: /cgn2_6/ptodata/2/pna/US10_NEW_COMB.seq:*

7: /cgn2_6/ptodata/2/pna/US11_NEW_COMB.seq:*

8: /cgn2_6/ptodata/2/pna/US10_NEW_COMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8 7 6 5 4 3 2 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-867-570-1
2618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           October 29, 2004, 19:33:38; Search time 97 Seconds (without alignments) 5942.204 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OLIGO_NUC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 680018 seqs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gapop 60.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                     41.6
4.6
3.7
1.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20
      aacaattgccgcgaattcgg.....
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
    10440
1604
11300
11300
11300
11300
22110
22401
2075
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11519
11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GenCore version 5.1.6 (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gapext 60.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 110082838 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                              US-10-957-135-30
US-10-957-135-15
US-10-957-135-62
US-10-957-135-62
US-10-957-135-68
US-10-957-135-56
US-10-957-135-72
US-10-957-135-72
US-10-957-135-72
US-10-957-135-74
US-10-957-135-74
US-10-957-135-74
US-10-957-135-74
US-10-957-135-64
US-10-957-135-64
US-10-957-135-64
US-10-956-160-216621
US-10-956-160-7449
US-10-956-160-7449
US-10-956-160-71756
US-10-956-160-721631
US-10-956-160-71756
US-10-956-160-21756
US-10-957-135-26
US-10-957-135-26
US-10-957-135-26
US-10-957-135-26
US-10-957-135-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               chosen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           . gaaaaaaaaaaaaaaaaaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3851
                                                           Sequence 30, Appl
Sequence 15, Appl
Sequence 21, Appl
Sequence 62, Appl
Sequence 56, Appl
Sequence 56, Appl
Sequence 54, Appl
Sequence 77, Appl
Sequence 74, Appl
Sequence 21, Appl
Sequence 9630, Appl
Sequence 9630, Appl
Sequence 9631, Appl
Sequence 614, Appl
Sequence 7081, Appl
Sequence 216621,
Sequence 216621,
Sequence 21756, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Description
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2618
```

δ 밁

533

AATCAACGGACGTGAGGAGACT

AATCAACGGACGTGAGGACACTCCTTGCTACAAGCAGACCCTGAGCTTCACGGGGCTGAC

432 592 372

CAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAACTGACACC

밁 S

Query Match Best Local Similarity Matches 1088; Conserv

Conservative

41.6%; but
100.0%; Pred. No.
100.0%; Mismatches

DB 6, 0,

Length 1400; Indels

0,

Gaps

RESULT 1 US-10-957-135- Sequence 30, Sequence 30, GENERAL INFC APPLICANT: APPLICANT APPLICATOR FILIT PRIOR APPLI PRIOR FILIT PRIOR PILIT P	C C C C C C C C C C C C C C C C C C C
135-30 130, Application US/1 10FORMATION: NT: Anderson, David J NT: Dong, Xinzhong NT: Eylka, Mark NT: Simon, Melvin NT: Simon, Melvin NT: Han, Sang-kyou F INVENTION: PAIN SIG FREENCE: CALTE 4C1CP1 APPLICATION NUMBER: US PLING DATE: 2000-08-0 PPLICATION NUMBER: US ILING DATE: 2000-08-0 PPLICATION NUMBER: US ILING DATE: 2000-08-0 PPLICATION NUMBER: US ILING DATE: 2001-04-1 PPLICATION NUMBER: US SILING DATE: 2001-04-1 PPLICATION NUMBER: US ILING DATE: 2002-06-2 OF SEQ ID NOS: 109 DILICATION SITULY PPLICATION NUMBER: US ILING DATE: 2002-06-2 OF SEQ ID NOS: 109 DIAM DIAM O 30 SE: FASTSEQ for Window O 30 SM: Homo sapiens EY: CDS ON: (332)(1297)	25 1.0 4293 6 US- 25 1.0 4332 6 US- 26 0.9 368 6 US- 27 0.9 574 6 US- 27 0.9 697 6 US- 27 0.9 90100 1 PCT 28 0.9 201 6 US- 29 0.9 201 6 US- 20 0.9 240 6 US- 20 0.9 385 6 US- 20 0.9 385 6 US- 20 0.9 394 6 US- 20 0.9 396 6 US- 20 0.9 410 6 US-
0957135 	10-811-028A-2 110-811-028A-1 110-220-366A-5762 110-956-1100-10950 110-956-1100-21057 110-956-157-2831 110-956-157-2831 110-956-160-12217 110-956-160-12217 110-956-160-11880 110-956-160-21987 110-956-160-21987 110-956-160-21987 110-220-366A-1400 110-220-366A-1400 110-220-366A-7410 110-220-366A-7410 110-220-366A-5577 110-956-160-215980
	Sequence 2, Appli Sequence 1, Appli Sequence 10950, A Sequence 221057, Sequence 2831, Ap Sequence 10866, Ap Sequence 12217, A Sequence 12217, A Sequence 3751, Ap Sequence 3751, Ap Sequence 10832, A Sequence 10832, A Sequence 10400, Ap Sequence 1400, Ap Sequence 2372, Ap Sequence 2372, Ap Sequence 2373, Ap Sequence 5577, Ap Sequence 5573, Ap Sequence 5873, Ap Sequence 5873, Ap

```
1033
                                                                                                                                                                                                                                                           1213
                                                                                                                                                                                                                                                                                                      1373
                                                                                                                                                                                                                                                                                                                                                                                          1313
                                                                                                                                                                                                                                                                                                                                                                                                                                     1093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCTCTCTGTGGCCTGCCCTTTGGCAT 1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTACGTGACCATCCTCCACAGTGCTGGTCTTCCTCCTCTGTGGCCTGCCCTTTGGCAT 1192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGGGTTCTCTGTGGGTC 1072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTTGGTGTGA 1012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCATGCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTCCTTAGCGGCCACTTATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCGCATGCGCAGGAACGCTGTCTCCATCTAACATCCTCAACCTGGTCGCGGCCGACTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTG
                                                                                                                              GAGAGCAATGCTGCCCTGCCACCCTTGACAATTATATGCATTTTTCTTAGCCTTCTGCCT 1552
                                                                                                                                                                                              GCTGTCGGGAAGCAGATTGGAGCAGTGAGGAAGAACCTCTGCCCTGTCAGACAGGACTTT
                                                                                                                                                                                                                                                                                                                                                 CGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGC
                                                                                                                                                                                                                                                                                                                                                                     CGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGC 1372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCA 1252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGCCTGGTCCTGCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCT 972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGCCTGGTCCTGGTCAGGATTCTCTGTGGATCCCGGAAGATGCCGCTGACCAGGCT 1132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGGCCCTGTCCCTGCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACTGCCGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTCCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCCATCCCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCGACTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTGCATCGTTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCCTGGGCTG
                                        CAGAAATG
                                                                                 GAGAGCAATGCTGCCCTGCCCTTGACCATTATATGCATTTTTCTTAGCCTTCTGCCT
                                                                                                                                                                                                                                                                                 TCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCTGGA 1432
                                                                                                                                                                                                                                                                                                                                                                                                                                       TCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCTAGTTTCCATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCCATCATTTACTTCTT 1312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCTGATTCTGTTTGGTGTGA
                                                                                                                                                                                                                                                           TCTGCAGGACACGCCTGAGGTGGATGAAGGTGGAGGGTGGCTTCCTCAGGAAACCCCTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCAGTGGGCCCTGTTTTCCAGGATCCACCTGGATTGGAAAGTCTTATTTTGTCATGTGCA
1400
                                        1560
                                                                                                                                                                                                                                                                                                                                                                                                                                     1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1092
                                                                                                                                                                                                                1492
                                                                                                                                                                                                                                                           1272
                                                                                                                                                                                                                                                                                                                                                 1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                652
                                                                                      1392
                                                                                                                                                                         1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       672
```

S 밁 S 밁 S 밁 5 밁 Ś 밁 5 В

밁

US-10-957-135-15; Sequence 15, Application US/10957135; Sequence 15, Application US/10957135; GENERAL INFORMATION:

ક

밁

Ś

밁

밁

S 문 Ş 멍 Ś 밁 8 밁 δ 밁 S 밁 S

```
APPLICANT: HAIN, SAMPLY AND APPLICANT: HAIN, SAMPLY AND APPLICANT: HAIN, SAMPLY AND APPLICANT: HAIN, SAMPLY APPLICANT: HAIN SIGNALING MOLECULES FILE REFERENCE: CALTE.4C1CP1C1
CURRENT APPLICATION UNMBER: US/10/957,135
CURRENT FILING DATE: 2004-09-30
PRIOR APPLICATION NUMBER: US 60/202,344
PRIOR FILING DATE: 2000-08-01
PRIOR APPLICATION NUMBER: US 60/202,027
PRIOR FILING DATE: 2000-01-03
PRIOR FILING DATE: 2000-11-03
PRIOR FILING DATE: 2000-11-03
PRIOR APPLICATION NUMBER: US 60/285,493
PRIOR APPLICATION NUMBER: US 09/849,869
PRIOR APPLICATION NUMBER: US 09/849,869
PRIOR PILING DATE: 2001-04-19
PRIOR PILING DATE: 2001-05-04
PRIOR PILING DATE: 2001-05-04
PRIOR PILING DATE: 2002-06-26
NUMBER OF SEQ ID NO: 15
SOPTWARE: FRABESEQ for Windows Version 4.0
Type: DNA
APPLICANT: Zylka, Mark
APPLICANT: Simon, Welvin
APPLICANT: Han, Sang-kyou
TITLE OF INVENTION: PAIN SIGNALING MOLECULES
FILE REFERENCE: CALTE, 4C1CP1C1
CURRENT APPLICATION NUMBER: US/10/957,135
CURRENT FILING DATE: 2004-09-30
PRIOR APPLICATION NUMBER: US 60/202,344
PRIOR APPLICATION NUMBER: US 60/202,027
PRIOR FILING DATE: 2000-05-04
PRIOR FILING DATE: 2000-05-04
PRIOR FILING DATE: 2000-11-03
PRIOR APPLICATION NUMBER: US 60/205,493
PRIOR APPLICATION NUMBER: US 60/85,493
PRIOR FILING DATE: 2001-05-04
PRIOR FILING DATE: 2001-05-04
PRIOR FILING DATE: 2001-05-04
PRIOR APPLICATION NUMBER: US 09/849,869
PRIOR APPLICATION NUMBER: US 09/849,869
PRIOR APPLICATION NUMBER: US 10/183,116
PRIOR PILING DATE: 2001-05-04
PRIOR PILING DATE: 2002-06-26
NUMBER OF SEQ ID NOS: 109
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 3
US-10-957-135-32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁

; NAME/KEY: CDS
; LOCATION: (328)...(1293)
US-10-957-135-15

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 120; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 32, Application US/10957135 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: APPLICANT: APPLICANT: APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA
ORGANISM: Homo
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Anderson, David APPLICANT: Dong, Xinzhong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Dong, Xinzhong
Zylka, Mark
Simon, Melvin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGAC 1382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCC 1158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Dong, Xinzhong
Zylka, Mark
Simon, Melvin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Anderson,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGCTCTCCAGAGGGCTCTGCAGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ilarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ۲.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>.</u>4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 120; DB 6; I
; Pred. No. 3.9e-42;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 2040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
```

Gaps

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; NAME/KEY: CDS
; LOCATION: (433)...(1398)
US-10-957-135-32
                                                                                                     US-10-957-135-62
                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                             ; NAME/KEY: CDS
; LOCATION: (171)...(1160)
US-10-957-135-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Han, Sang-kyou
TITLE OF INVENTION: PAIN SIGNALING MOLECULES
FILE REFERENCE: CALTE 4C1CP1C1
CURRENT APPLICATION NUMBER: US/10/957,135
CURRENT FILING DATE: 2004-09-30
PRIOR APPLICATION NUMBER: US 60/222,344
PRIOR FILING DATE: 2000-08-01
PRIOR PAILING DATE: 2000-08-01
PRIOR PAPPLICATION NUMBER: US 60/202,027
PRIOR PILING DATE: 2000-05-04
PRIOR APPLICATION NUMBER: US 09/704,707
PRIOR APPLICATION NUMBER: US 09/704,707
PRIOR FILING DATE: 2000-11-03
PRIOR APPLICATION NUMBER: US 09/849,869
PRIOR PRILING DATE: 2001-05-04
                                                                                                                           RESULT 5
Sequence 62, Application US/10957135
GENERAL INFORMATION:
APPLICANT: Anderson, David J.
APPLICANT: Dong, Xinzhong
APPLICANT: Zylka, Mark
                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 97; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 17, Application US/10957135 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQ ID NO 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Anderson, David J. APPLICANT: Dong, Xinzhong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: US 10/183,116
PRIOR FILING DATE: 2002-06-26
                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 1604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 1300
                                                                                                                                                                                                                                  1276 CTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTC 1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1347 AACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACA 1383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1287 AGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAG
                                                                                                                                                                                          976 CTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTC 1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FastSEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACA 1324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Zylka, Mark
Simon, Melvin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    for Windows Version 4.0
                                                                                                                                                                                                                                                                         100.0%; P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3.7%;
                                                                                                                                                                                                                                                                                               1.8%; Score 46;
100.0%; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 97; DB 6; I Pred. No. 2.5e-32;
                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                               DB 6; I
                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 1604;
                                                                                                                                                                                                                                                                                                                 Length 1300;
                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                            0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                            0,
```

```
Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; ORGANISM: Mus musculus US-10-957-135-62
                                                                                              ; ORGANISM: Mus musculus 
US-10-957-135-58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-957-135-58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: US 60/222,344
PRIOR FILING DATE: 2000-08-01
PRIOR PELICATION NUMBER: US 60/202,027
PRIOR PELICATION NUMBER: US 60/202,027
PRIOR PELICATION NUMBER: US 09/704,707
PRIOR PELICATION NUMBER: US 09/704,707
PRIOR PELICATION NUMBER: US 60/285,493
PRIOR PELICATION NUMBER: US 60/285,493
PRIOR PELICATION NUMBER: US 09/849,869
PRIOR APPLICATION NUMBER: US 09/849,869
PRIOR PELICATION NUMBER: US 09/849,869
PRIOR PELICATION NUMBER: US 09/849,869
PRIOR PELICATION NUMBER: US 09/849,869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: US 10/183,116
PRIOR FILING DATE: 2002-06-26
NUMBER OF SEQ ID NOS: 109
SOPTWARE: FastSEQ for Windows Version 4
SEQ ID NO 62
                                                                                                                                                             NUMBER OF SEQ ID NOS:
SOFTWARE: FastSEQ for
SEQ ID NO 58
LENGTH: 2110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 58, Application:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity 100.0%; Matches 37; Conservative
Best Local Similarity Matches 37; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Anderson, David J. APPLICANT: Dong, Xinzhong APPLICANT: Zylka, Mark
                                                                                                                                                                                                                                                       PRIOR APPLICATION NUMBER: US 09/849,869
PRIOR FILING DATE: 2001-05-04
PRIOR APPLICATION NUMBER: US 10/183,116
PRIOR FILING DATE: 2002-06-26
                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: US 09/704,707
PRIOR FILING DATE: 2000-11-03
PRIOR APPLICATION NUMBER: US 60/285,493
PRIOR FILING DATE: 2001-04-19
PRIOR FILING DATE: 2001-04-19
                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: US 60/222,344
PRIOR FILING DATE: 2000-08-01
PRIOR APPLICATION NUMBER: US 60/202,027
PRIOR FILING DATE: 2000-05-04
PRIOR FILING DATE: 2000-05-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION NUMBER: US/10/957,135
CURRENT FILING DATE: 2004-09-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Han, Sang-kyou
TITLE OF INVENTION: PAIN SIGNALING MOLECULES
FILE REFERENCE: CALTE.4C1CP1C1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/10/957,135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Han, Sang-kyou
TITLE OF INVENTION: PAIN SIGNALING MOLECULES
FILE REFERENCE: CALTE.4C1CP1C1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1288 GTGCCAACCCCATCATTACTTCTTCGTGGGCTCCTT 1324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Zylka, Mark
Simon, Melvin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Simon, Melvin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Application US/10957135
  Conservative
                                                                                                                                                                                                              for Windows Version 4.0
                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 37; DB 6; Le
; Pred. No. 1e-06;
  0;
                          Score 37; DB 6; Length 2110; Pred. No. 1e-06;
    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 1979;
    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
```

S

1288 GTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTT 1324

0

```
В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 7
US-10-957-135-56/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-957-135-56
                                                                                                                                                                                                                                APPLICANT: Han, Sang-kyou
TITLE OF INVENTION: PAIN SIGNALING MOLECULES
FILE REFERENCE: CALTE.4C1CP1C1
CURRENT APPLICATION NUMBER: US/10/957,135
CURRENT FILING DATE: 2004-09-30
PRIOR APPLICATION NUMBER: US 60/222,344
PRIOR FILING DATE: 2000-08-01
PRIOR APPLICATION NUMBER: US 60/202,027
PRIOR FILING DATE: 2000-08-04
PRIOR FILING DATE: 2000-05-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: US 60/222,344
PRIOR FILING DATE: 2000-08-01
PRIOR APPLICATION NUMBER: US 60/202,027
PRIOR FILING DATE: 2000-05-04
PRIOR APPLICATION NUMBER: US 09/704,707
PRIOR FILING DATE: 2000-11-03
PRIOR FILING DATE: 2001-04-19
PRIOR FILING DATE: 2001-04-19
PRIOR FILING DATE: 2001-04-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match

Best Local Similarity 100.0%; Pred. No. 1e

Matches 37; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 56, Application US/10957135 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 54, Application US/10957135 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
APPLICANT:
                       PRIOR APPLICATION NUMBER: US 09/849,869
PRIOR TILING DATE: 2001-05-04
PRIOR APPLICATION NUMBER: US 10/183,116
PRIOR FILING DATE: 2002-06-26
NUMBER OF SEQ ID NOS: 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Anderson, David J. APPLICANT: Dong, Xinzhong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQ ID NOS: 109
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILE REFERENCE: CALTE.4C1CP1C1
CURRENT APPLICATION NUMBER: US/10/957,135
CURRENT FILING DATE: 2004-09-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Anderson, David APPLICANT: Dong, Xinzhong APPLICANT: Zylka, Mark
                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Han, Sang-kyou
TITLE OF INVENTION: PAIN SIGNALING MOLECULES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 2401
TYPE: DNA
ORGANISM: Mus musculus
                                                                                                                                       APPLICATION NUMBER: US 09/704,707
FILING DATE: 2000-11-03
APPLICATION NUMBER: US 60/285,493
FILING DATE: 2001-04-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 2001-05-04
APPLICATION NUMBER: US 10/183,116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1288 GTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTT 1324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 09/849,869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1138 GTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTT 1102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Simon, Melvin
                                                                                                                                                                                                                                                                                                                                                                                                                                               Simon, Melvin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Zylka, Mark
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Dong, Xinzhong
       for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2002-06-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 37; DB 6; Length 2401; pred. No. 1e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; LENGTH: 2093
; TYPE: DNA
; ORGANISM: Mus musculus
US-10-957-135-54
APPLICANT: Anderson, David J.
APPLICANT: Anderson, David J.
APPLICANT: Dong, Xinzhong
APPLICANT: Zylka, Mark
APPLICANT: Simon, Melvin
APPLICANT: Han, Sang-kyou
TITLE OF INVENTION: PAIN SIGNALING MOLECULES
FILE REFERENCE: CALTE 4CLCP1C1
CURRENT APPLICATION NUMBER: US/10/957,135
CURRENT FILING DATE: 2004-09-30
PRIOR APPLICATION NUMBER: US 60/222,344
PRIOR FILING DATE: 2000-08-01
PRIOR APPLICATION NUMBER: US 60/202,027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-957-135-72/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-957-135-72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT
                                                                                                                                                                                                                                                                                                                               US-10-957-135-52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 34; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQ ID NOS:
SOFTWARE: FastSEQ for
SEQ ID NO 72
LENGTH: 2758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 34; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID NO 54
LENGTH: 2093
                                                                                                                                                                                                                                                                                                            Sequence 52, Application US/10957135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 72,
                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: US 60/222,344
PRIOR FILING DATE: 2000-08-01
PRIOR APPLICATION NUMBER: US 60/202,027
PRIOR FILING DATE: 2000-05-04
PRIOR APPLICATION NUMBER: US 09/704,707
PRIOR FILING DATE: 2000-11-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: US 10/183,116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR FILING DATE: 2001-05-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR FILING DATE: 2001-04-19
PRIOR APPLICATION NUMBER: US 09/849,869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILE REFERENCE: CALTE.4C1CP1C1
CURRENT APPLICATION NUMBER: US/10/957,135
CURRENT FILING DATE: 2004-09-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Anderson, David J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: US 60/285,493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Han, Sang-kyou
TITLE OF INVENTION: PAIN SIGNALING MOLECULES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1371 GIGCCAACCCCATCATTTACTTCTTCGTGGGCTC 1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1288 GTGCCAACCCCATCATTTACTTCTTCGTGGGCTC 1321
                                                                                                                                                                                                                                                                                                                                                                                                                            1121 GTGCCAACCCCATCATTTACTTCTTCGTGGGCTC 1088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1288 GTGCCAACCCCATCATTACTTCTTCGTGGGCTC 1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Application US/10957135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Zylka, Mark
Simon, Melvin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ilarity 100.0%; 1
Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2002-06-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.3%; Score 34;
100.0%; Pred. No.
tive 0; Mismatcl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.3%; Score 34; DB 6;
100.0%; Pred. No. 1.9e-(
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1.9e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.9e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 2758;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 2093;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
```

<u>,</u>

PRIOR FILING DATE: 2000-05-04

```
밁
US-10-957-135-24
; Sequence 24, Application US/10957135
; GENERAL INFORMATION:
; APPLICANT: Anderson, David J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; TYPE: DNA
; ORGANISM: Mus musculus
US-10-957-135-52
                                                                                    RESULT 12
                                                                                                                                                                                                                                                                                                               US-10-957-135-74
                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT FILING DATE: 2004-09-30
PRIOR APPLICATION NUMBER: US 60/222,344
PRIOR TILING DATE: 2000-08-01
PRIOR PPLICATION NUMBER: US 60/202,027
PRIOR PPLICATION NUMBER: US 09/704,707
PRIOR PILING DATE: 2000-11-03
PRIOR PILING DATE: 2000-11-03
PRIOR PILING DATE: 2001-04-19
PRIOR PILING DATE: 2001-04-19
PRIOR PILING DATE: 2001-05-04
PRIOR PILING DATE: 2002-06-26
NUMBER OF SEO ID NOS: 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-957-135-74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 74, Application US/10957135
GENERAL INFORMATION:
APPLICANT: Anderson, David J.
APPLICANT: Dong, Xinzhong
APPLICANT: Zylka, Mark
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 33; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 52
LENGTH: 1519
                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 33; Conserv
                                                                                                                                                                                                                                                                                                                                                                                         SEQ ID NO 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Han, Sang-kyou
TITLE OF INVENTION: PAIN SIGNALING MOLECULES
FILE REFERENCE: CALTE.4CLCP1C1
CURRENT APPLICATION NUMBER: US/10/957,135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: US 60/285,493
PRIOR FILING DATE: 2001-04-19
PRIOR APPLICATION NUMBER: US 09/849,869
PRIOR FILING DATE: 2001-05-04
PRIOR APPLICATION NUMBER: US 10/183,116
PRIOR FILING DATE: 2002-06-26
                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                TYPE: DNA
ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1289 TGCCAACCCCCATCATTTACTTCTTCGTGGGCTC 1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 2000-11-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 09/704,707
                                                                                                                                                                                        1292 CAACCCCATCATTTACTTCTTCGTGGGCTCCTT 1324
                                                                                                                                                  794 CAACCCCATCATTTACTTCTTCGTGGGCTCCTT 826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     854 TGCCAACCCCATCATTTACTTCTTCGTGGGCTC 886
                                                                                                                                                                                                                                                                                                                                                                          1738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Zylka, Mark
Simon, Melvin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.3%; 500
100.0%; Pr
                                                                                                                                                                                                                        1.5%,
100.0%; Pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           109
                                                                                                                                                                                                                                                 Score 33; pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 33; DB 6; I
Pred. No. 5.2e-05;
                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                 DB 6; Lo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>.</u>.
                                                                                                                                                                                                                                                                    Length 1738;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1519;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0,
                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
```

```
PRIOR APPLICATION NUMBER: US 60/222,344
PRIOR FILING DATE: 2000-08-01
PRIOR PPLICATION NUMBER: US 60/202,027
PRIOR APPLICATION NUMBER: US 60/202,027
PRIOR APPLICATION NUMBER: US 09/704,707
PRIOR APPLICATION NUMBER: US 09/704,707
PRIOR APPLICATION NUMBER: US 09/845,493
PRIOR FILING DATE: 2001-04-19
PRIOR APPLICATION NUMBER: US 09/849,869
PRIOR APPLICATION NUMBER: US 09/849,869
PRIOR FILING DATE: 2001-05-04
PRIOR PILING DATE: 2002-66-26
PRIOR FILING DATE: 2002-66-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-957-135-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-957-135-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1, Application US/10957135 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 31; Conserv
                                          NUMBER OF SEQ ID NOS:
SOFTWARE: FastSEQ for
SEQ ID NO 1
LENGTH: 1088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Han, Sang-kyou
TITLE OF INVENTION: PAIN SIGNALING MOLECULES
FILE REFERENCE: CALTE 4C1CP1C1
CURRENT APPLICATION NUMBER: US/10/957,135
CURRENT FILING DATE: 2004-09-30
PRIOR ADDITORS
                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Han, Sang-kyou
TITLE OF INVENTION: PAIN SIGNALING MOLECULES
FILE REFERENCE: CALTE.4C1CP1C1
CURRENT APPLICATION NUMBER: US/10/957,135
CURRENT FILING DATE: 2004-09-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: US 09/849,869
PRIOR FILING DATE: 2001-05-04
PRIOR APPLICATION NUMBER: US 10/183,116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Anderson, David J. APPLICANT: Dong, Xinzhong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: FastSEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR FILING DATE: 2000-11-03
PRIOR APPLICATION NUMBER: US 60/285,493
PRIOR FILING DATE: 2001-04-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: US 60/202,027
PRIOR FILING DATE: 2000-05-04
PRIOR APPLICATION NUMBER: US 09/704,707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: US 60/222,344
PRIOR FILING DATE: 2000-08-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA ORGANISM: Mus musculus FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: CDS
LOCATION: (106)...(1020)
ORGANISM: Mus Musculus
                         TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ENGTH: 1045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1288 GTGCCAACCCCATCATTTACTTCTTCGTGGG 1318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        872 GTGCCAACCCCATCATTTACTTCTTCGTGGG 902
                                                                                         FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Zylka, Mark
Simon, Melvin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Zylka, Mark
Simon, Melvin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Dong, Xinzhong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2002-06-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1.2%; Prr
100.0%; Prr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No. 0.00037;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1045;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
```

```
APPLICANT: HYSEQ, INC
ITILE OF INVENTION: Novel Nucleic Acids and Polypeptides
FILE REFERENCE: 21272-042
CURRENT APPLICATION NUMBER: US/10/220,366A
CURRENT FILING DATE: 2002-08-28
PRIOR APPLICATION NUMBER: 09/577,409
PRIOR FILING DATE: 2000-05-18
PRIOR FILING DATE: 2001-02-23
NUMBER OF SEQ ID NOS: 27802
SOFTWARE: Custom
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 14
US-10-220-366A-9630/c
; Sequence 9630, Application US/10220366A
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                APPLICANT: Han, Sang-kyou
TITLE OF INVENTION: PAIN SIGNALING MOLECULES
PILE REFERENCE: CALTE.4C1CP1C1
CURRENT APPLICATION NUMBER: US/10/957,135
CURRENT FILING DATE: 2004-09-30
PRIOR APPLICATION NUMBER: US 60/222,344
PRIOR TILING DATE: 2000-08-01
PRIOR APPLICATION NUMBER: US 60/202,027
PRIOR PILING DATE: 2000-08-01
PRIOR FILING DATE: 2000-05-04
PRIOR FILING DATE: 2000-11-03
PRIOR APPLICATION NUMBER: US 09/704,707
PRIOR APPLICATION NUMBER: US 09/704,707
PRIOR APPLICATION NUMBER: US 60/285,493
PRIOR APPLICATION NUMBER: US 60/285,493
PRIOR FILING DATE: 2001-04-19
PRIOR FILING DATE: 2001-04-19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-220-366A-9630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; LOCATION: (115)...(1026) US-10-957-135-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 64, Application US/10957135 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQ ID NO 9630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
SOFTWARE:
                                         PRIOR APPLICATION NUMBER: US 09/849,869
PRIOR FILING DATE: 2001-05-04
PRIOR APPLICATION NUMBER: US 10/183,116
PRIOR FILING DATE: 2002-06-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Anderson, David J. APPLICANT: Dong, Xinzhong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KBY: misc feature
LOCATION: (1)...(1010)
OTHER INFORMATION: n = a,t,c or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ENGTH: 1010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity 100.0%; P hes 31; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity 100.0%; Pred. No. 0.0 tes 28; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1288 GTGCCAACCCCATCATTTACTTCTTCGTGGG 1318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 402 ATAAATTTCCCAGTCTCAGGTATTTCTT 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 878 GIGCCAACCCCATCATTTACTTCTTCGTGGG 908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           221 ATAAATTTCCCAGTCTCAGGTATTTCTT 248
FastSEQ for Windows Version 4.0
                        SEQ ID NOS: 109
                                                                                                                                                                                                                                                                                                                                                                                                                                              Simon, Melvin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Dong, Xinzhong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.2%; Score 31; DB 6; Le 100.0%; Pred. No. 0.00037;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 28; DB 6; Pred. No. 0.0071;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1010;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1088;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
```

```
; SEQ ID NO 64
; LENGTH: 1485
; TYPE: DNA
; ORGANISM: Mus musculus
US-10-957-135-64

Query Match
Best Local Similarity 100.0%; Pred. No. 0.05;
Matches 26; Conservative 0; Mismatches 0; Indels 0; Gaps

Qy 1288 GTGCCAACCCCATCATTTACTTCTTC 1313
Db 926 GTGCCAACCCCATCATTTACTTCTTC 951
```

0,

Search completed: October 30, 2004, 03:32:11 Job time: 102 secs

```
Minimum
Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Run
                                                                                                                                                                                                                                      Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Title:
Perfect score:
                                                                      000000000000
                                                                                                                                                                                                                                                                                                                                                                                              Database :
                                                                                                                                                                                                                                                                                                                                                                                                               Post-processing: Listing first 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Word size :
                                                                                                                                                                                                                              ĕ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 on:
 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                88
                                                                                                                                                                                                                             Score
                                                                                                                                                                                                                                                                                                                                                                                                                               seq length: 0
seq length: 2000000000
Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-867-570-1
2618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OLIGO_NUC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       October 29, 2004, 18:51:18; Search time 7918 Seconds (without alignments)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               32822875 seqs, 18219865908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gapop 60.0 , Gapext 60.0
                                                                                                                                                                                                                                                                                                                                                                                             EST:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Copyright
                                                                                                                                                                                                                                                                                                                                                         gb_est2:*
gb_htc:*
gb_est3:*
                                                                                                                                                                                                                                                                                                            gb_gss2:*
                                                                                                                                                                                                                                                                                                                              gb_est6:*
                                                                                                                                                                                                                                                                                                                                                                                   gb_est1:*
                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                        _est4:*
_est5:*
                                                                                                                                                                                                                                                                                                                      _gss1:*
                                                                                                                                                     662
905
764
1009
871
827
835
863
8953
924
953
1184
248
2552
5525
503
468
826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GenCore version 5.1.6 (c) 1993 - 2004 Compus
                                                                                                                                                                                                                              DB
        B74348
CN835770
                         CN831816
CD051096
AF003828
                                                                      BG196705
AL705589
                                                                                       CN839634
CN839765
BG195197
                                                                                                                 CN835944
CN840024
                                                                                                                                                                       CD243595
BG198766
                                                                                                                                                                                         BE439409
AV731610
                                                    AQ392205
CN843258
                                                                                                                                                                                                                             Ħ
                                                                                                                                    CN843633
                                                                                                                                              CN831885
                                                                                                                                                      BG210740
                                                                                                                                                                CN837763
                                                                                                                                                                                                                                                                                                                                                                                                              summaries
                                                                                                                                                                                                                                                        SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                           parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12048.398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                           317745
                         CN831885
CN835944
CN835944
CN839634
CN839634
CN839636
CN839636
BG195197
BL7105589
AQ392205
AL705589
AQ392205
AL705589
AQ392205
AL7051086
CN843258
CN843258
                                                                                                                                                     CD243595
BG198766
CN837763
BG210740
                                                                                                                                                                                         BE439409
AV731610
B74348 CIT-HSP-204
CN835770 AGENCOURT
CN839711 AGENCOURT
                                                                                                                                                                                                            CA455045
                                                                                                                                                                                                                             Description
                         S AGENCOURT
S RST18035
AGENCOURT
C RST30287
AGENCOURT
                                                                                                                                                                                        AGENCOURT
HTM1-025F
AV731610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2618
                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                        SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                 ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 1
CA455045
         ORIGIN
                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                                                          KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            വവ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                            TITLE
                                                                                                                                                                source
                                                                                                                                                                                                                                                                                  Unpublished (1999
                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                  CA455045.1 GI:24905369
                                                                                                                                                                                                                                                                                                                                                                             CA455045
                                                                                                                                                                                                                                                                                                                                                                                                      CA455045
                 Manuscript submitted.
                                                                                                                                                                 . 889
```

45	44	43	42	41	40	39	38	37	36	35	34	ω G	32	31	30	29	28	27	26	25
35	36	36	37	38	38	38	38	38	39	39	40	41	41	41	41	43	43	44	44	44
1.3	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.7
141	598	191	503	787	869	694	692	636	1114	618	620	954	871	811	435	855	419	899	851	835
7	8	7	00	4	ø	9	φ	9	7	8	œ	7	7	4	8	7	۲	7	7	7
H49498	AQ583508	T59759	AQ888076	BG208126	AG013748	AG013746	AG013779	AG013749	CN837998	AQ587244	AQ696198	CN842891	CN839125	CN831931	AQ192307	CN839609	AL118979	CN843534	CN839827	CN834097
H49498 YG20G09.81	AQ583508 RPCI-11-4	T59759 yc13b07.rl	AQ888076 HS_2142_B	BG208126 RST27616	AG013748 Homo sapi	AG013746 Homo sapi	AG013779 Homo sapi	AG013749 Homo sapi	CN837998 AGENCOURT	AQ587244 RPCI-11-4	AQ696198 HS_2142_B	CN842891 AGENCOURT	CN839125 AGENCOURT	CN831931 AGENCOURT	-	CN839609 AGENCOURT	AL118979 DKFZp761G	CN843534 AGENCOURT	CN839827 AGENCOURT	CN834097 AGENCOURT

## ALIGNMENTS

Email: cgapbs-remail.nih.gov
Tissue Procurement: Kristi A. Egland, Ira Pastan
CDNA Library Preparation: Invitrogen Corp
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
plate: LLAM14285 row: h column: 07
High quality sequence stop: 743. Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 889)

NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC) AGENCOURT 10735784 MAPCL Homo mRNA sequence. Contact: Robert Strausberg, Ph.D. /clone="IMAGE:6722551"
/cell line="ZR-75-1, MCF7, SK-BR-3, MDA-MB-231,
/cell line="ZR-75-1, MCF7, SK-BR-3, MDA-MB-231,
hTBRT-HMEI, LNCap"
/lab\_host="EMDH10B"
/clone lib="MAPCL"
/clone lib="MAPCL"
/note="Vector: pCMV-SPORT6; Site\_1: BcoRV; Site\_2: Not I;
Subtracted with brain, liver, lung, kidney and muscle.
Sibtracted with brain, liver, live cancer genes encoding membrane and secreted proteins. organism="Homo sapiens" /mol\_type="mRNA" /db\_xref="taxon:9606" ocation/Qualifiers gd 688 p mRNA linear EST 12-NOV-2002 sapiens cDNA clone IMAGE:6722551 5', þe

```
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                          REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                             RESULT 2
BE439409
LOCUS
                                              JOURNAL COMMENT
                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                              멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 700; Conserv
                                                                                                                                                                                                                                                                                                                                                                        1126
                                                                                                                                                                                                                                                                                                                                                                                                                                  1066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       466
                                                                                                                                                                                                                                                                                                                                           807
                                                                                                                                                                                                                                                                                                                                                                                                     747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 267
                                                                                                                                                                                                                            688
HTM1-025F1 HTM1 Homo sapiens
BE439409
                                            Gonzalez,P., Epstein,D.L. and Borras,T. Characterization of gene expression in human trabecular meshwork using single-pass sequencing of 1060 clones Invest. Ophthalmol. Vis. Sci. (2000) In press Contact: Pedro Gonzalez
 Department of Ophthalmology
Duke University
Duke Eye Center, Erwin Rd,
                                                                                                                    Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates; 1 (bases 1 to 688)
                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                    BE439409.1 GI:9438891
                                                                                                                                                                                  domo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                           CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCT 1168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCGCCGCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACTTCCTCTTCCTTAGCGGCCACATTATATGTTCGCCGTTAGGCCTCATGAATATCCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGACACCAATCAACGGACGTGAGGAGGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC 206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGTGTGAAACGTCAGATTTCATTACAATCGCGTGGCTGGTTTTTTTATGTGTGGGTTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATCCCATCTCCAAAATCCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCTGACGTGCATCGTTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGGCTCTGGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                     GTGGGTCCAGCCTGGTCCTGGTCANGATTCTCTGTGGATCCCGGAAGATGCCGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                       GTGGGTCCAGCCTGGTCAGGATCTCTGTGGATCCCGGAAGATGCCGGTGA 1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTGCATCCTCAACCTGGTCGCGGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG
                                                                                                                                                                                                                                                                                                                                           CCAGGCTGTACGTGACCATCCTCCTCACAGTGCTGGTCTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCCTACTTTATAGGCCTAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACTTCCTCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 550; DB 6;
Pred. No. 3.7e-267;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
 Box 3802,
                                                                                                                                                                                                                                               cDNA,
                                                                                                                                       Craniata; Vertebrata;
Catarrhini; Hominidae,
                                                                                                                                                                                                                                                 mRNA
mRNA
 Durham,
                                                                                                                                                                                                                                                 sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 889;
                                                                                                                                          Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                               linear
 NC
                                                                                                                                                                                                                                                                                                                                           849
 27710-3802,
                                                                                                                                                       Euteleostomi;
                                                                                                                                                                                                                                                                EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                25-JUL-2000
    USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        525
                                                                                                                                                                                                                                                                                                                                                                                                        806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                             RESULT 3
AV731610
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            맑
                                                                                                                                                                                                                                                                                                                                           片
                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                   COMMENT
                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 20.2%;
Best Local Similarity 100.0%;
Matches 530; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 662)
2 (bay, Peng, Y., Song, H., Huang, Q., Yang, Y., Gao, G., Xiao, H., Xu, Y., Yang, Y., Gao, X., Cheng, Z., Xu, Z., Zeng, L., Xu, S., Gu, W., Tu, Y., Jia, J., Fu, G., Ren, S., Zhong, M., Lu, G., Hu, F., Chen, J., Chen, Z. and Han, Z.
Homo sapiens cDNA HTF clones
1 Unpublished (2000)
1 Contact: Zeguang Han
1 Chinese National Human Genome Center at Shanghai
                                                                                                                                                                                                                                                                                                                                                                          946
                                                                                                                                                                                                                                                                                                                                                                                                        454
                                                                                                                                                                                                                                                                                                                                                                                                                                     988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       466 GGGTCATCAGACTGGGGTTTCTGAGCCATGGATTCTAACCATCCCAGTCTTGGGTACAGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         34
                                                                                                                                                                                                    AV731610 HTI
AV731610 HTI
AV731610
AV731610.1
EST:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tel: 919 681 4085
Fax: 919 684 8983
Email: pedro.gonzalez@duke.edu.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                       GCCGCCGCCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTCGGGCCCTGTCCCTGC 945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCCTACTTTATAGGCCTAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCCGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCTGAGCGCCATCAGCACCGAGCGCTGCCCTGTCCATCCTGTGGCCCATCTGGTACCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATCCCATCTCCAAAATCCTCAGTCCTGTGATGACCTTTCCCTACTTTATAGGCCTAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACTICCICTICCTIAGCGGCCACATIAIATGTICGCCGTIACGCCTCATCAATAICCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCTGACGTGCATCGTTGTCGCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC
                                                                                                                                                                                                                                                                                                                                                               TGCGGAGTATCCTGGAGTGGATGTTCTGTGACTTCCTGTTTAGTGGTGCT 995
                                                                                                                                                                                                                                                                                                                                                                                                       GCCGCCGCCCAGATACCTGTCATCGGTCATGTGTGTCCTGCTCTGGGCCCTGTCCCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCTGAGCGCCATCAGCACCGAGCGCTGCCTGTCCATCCTGTGGCCCATCTGGTACCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACTTCCTCTTAGCGGCCACATTATATGTTCGCCGTTACGCCTCATCAATATCCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/tissue type="Trabecular mu/clone_lib="HTM1"
                                                                                                                                                                                                                                                  HTF Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1. .688
                                                                                                                                                                                                                     GI:10849155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 530; DB 2; L. Pred. No. 5.3e-257; 0; Mismatches 0;
                                                                                                                                                                                                                                                                    662
                                                                                                                                                                                                                                                 662 bp mRNA linear EST 17-OCT-2000 cDNA clone HTFAKD08 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               meshwork"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 688;
                                                                                                                                                         Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                 Hu, R.
                                                                                                            Xu, X.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               153
```

```
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                   RESULT 4
CD243595
                                                                                                                                                              ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                            SOURCE
ORGANISM
                                                                                                                                          KEYWORDS
                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 12.0%;
Best Local Similarity 99.4%;
Matches 463; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bource
                                                                                                                                                                                                                                                                                                                                              2011 TTAGAAATTGGTTTTATGAATAGCCCTCTCCCTGTCATTTGTCCACA 2056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1591 ATGTTTATCTAACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              212
                                                                                                                                                            CD243595 905 bp m
AGENCOURT 14121139 NIH MGC 180 Homo
IMAGE:30383708 5', mRNA sequence.
CD243595
CD243595.1 GI:31004059
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 905)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        351 Guo Shoujing Road, Zha
201203, P. R. China
Tel: 86-21-50801919 (ex.45)
Fax: 86-21-50801922
                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AATGTTTGGATTCTCCTTGATATTACCAATACATTTTCCCTGTTATCTTGCACTGAATCT
                                                                                                                                                                                                                                                                                                                                                                                                                  TCTCAGATATAAAAGCAAAATAATGACCTTAGAGAGAGATTCTCCCCTTCATAAAAACACAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTCCTACTGAACACTTTTTCTGCACTTTTCATTGTAATAAAAGGAGTTCCTGTCCACAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGCAGTTGGAAGCTCAATTCTTAATAAGTGAGTTCTGCTACCTCTAAATTCCATTGAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGCAGTTGGAAGCTCAAFTCTTAATAAGTGAGTTCTGCTACCTCTAAATTCCATTGAAT 1950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTAATCTGTCAGACTATGTTCCCCTGAAAATCATGTTCCCTTCTATGACTGGAGGCATTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTAATCTGTCAGACTATGTTCCCCTGAAAATCATGTTCCCCTTTTATGACTGGAGGCATTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCTAMAACTCTTCTTTATACTTGTTTCCTACCTGATAGTATCMAAAAGGAAGATTCCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCTAAAACTCTTCTTTATACCTTGTTTCCTACCTGATAGTATCAAAAAGGAAGATTCCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCCTACTGAACACTTTTTCTGCACTTTTCATTGTAATAAAGGAGTTGCTGTCCACAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AATGTTTGGATTCTCCTTGATATTACCAATACATTTTCCCTGTTATCTTGCACTGAATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATGTTTATCTAACCTGACAGTTGCAGTTTTCACCCATGGAAAGCATTAGTCTGACAGTAC
                                                                                                                                                                                                                                                                                                                                                                                               TCTCAGATATAAAGCAAAATAATGTCCTTAGAGAGAGATTCTCCCTTCATAAAAACAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        l: hanzg@chgc.sh.cn
clone is available at CHGC in Shanghai.
                                                                                                                         sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="HTFAKD08"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /tissue_type="Hypothalamus"
/dev_stage="Adult"
/lab_host="SOLR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 313; DB 1; Length Pred. No. 8e-147; O; Mismatches 3; Indel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Zhangjiang Hi-Tech Park, Pudong, Shanghai
                                                                                                                                                                                                                mRNA linear ES'
sapiens cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                  2010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                             REFERENCE
AUTHORS
                                                                                                                                                                                                 SOURCE
ORGANISM
                                                                                                                                                                                                                                                   ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                뭉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                         RESULT 5
BG198766/c
                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                    KEYWORDS
                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                          POCAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                   604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            269;
```

8 밁

밁

밁 ð 뭐

S

밁 Ś 문 S

δ

```
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Dr. Michael Brownstein
CDNA Library Preparation: Invitrogen Corp
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
plate: NDAM447 row: p column: 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            High quality sequence start: 20
High quality sequence stop: 592.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                        TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC
                                                                                                                                                                                                                                                                   GGCTGACGTGCATCGTTTCCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGTCATCAGACTGGGGTTTCTGAGCATGGATTCAACCATCCCAGTCTTGGGTACAGAAC
                                                ACTICCTCTTCCTTAGCGGCCACATTATA 734
                                                                                                                                                         TGGGCTGCCGCATGCGCAGGAACGCTGTCTCCATCTACATCCTCAACCTGGTCGCGGCCG 705
                                                                                                                                                                                                               GGCTGACGTGCATCGTTTCCCTTGTCGCGCTGACAGGAAACGCGGTTGTGCTCTGGCTCC
                                                                                                                                                                                                                                                                                                                              TGACACCAATCAACGGACGTGAGGAGACTCCTTGCTACAAGCAGACCCTGAGCTTCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /clone="IMAGE:30383708"
/lab_host="DH10B=Ton A ( T1 and T5 phage resistances)"
/clone lib="NIH MGC 180"
/clone lib="NIH MGC 180"
/note="Organ: Testis; Vector: pCMV-SPORT6.1; Site 1: NotI;
/site 2: EcoRV (destroyed); Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.68 kb. Library was constructed by (Invitrogen). Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 269; DB 6; L
Pred. No. 1.8e-124;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ğ
                                                                                                                                                                                                                                                                           645
                                                                                                                                                                                                                                                                                                                                                                                       585
                                                                                                                                                                                                                     543
                                                                                                                                                                                                                                                                                                                                 483
                                                                                                            603
```

Rukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 764)

Harrington, J.J., Sherf, B., Rundlett, S., Jackson, P.D., Perry, R., Cain, S., Leventhal, C., Thornton, M., Ramachandran, R., Whittington, J., Lerner, L., Costanzo, D., McBlligott, K., Boozer, S., Mays, R., Smith, E., Veloso, N., Klika, A., Hess, J., Cothren, K., Lo, K., Mays, R., Smith, E., Veloso, N., Klika, A., Hess, J., Cothren, K., Lo, K. Creation of genome-wide protein expression libraries using random activation of genome-wide protein expression libraries using random nativation of genome-wide protein expression libraries nativation of genome-wide protein expression libraries nativation nativat BG198766 764 bp mRNA linear EST 21-APR-2 RST18035 Athersys RAGE Library Homo sapiens cDNA, mRNA sequence. BG198766 BG198766.1 GI:13720453 Homo sapiens Homo sapiens (human) linear Cothren, K., Lo, K.,

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMENT
                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CN837763/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 4.6%; So
Best Local Similarity 100.0%; F
Matches 120; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                           source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1263 ATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCGTGGGGCTCC 1322
                                                                                                                                                                                                                                                                                                                                                                                                                              Contact: Daniela S. Gerhard, Ph.D. Office of Cancer Genomics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21227151
11329013
Contact: Scott J. Cain
                                                                                                                                                            found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
Plate: IRBI4 row: e column: 04
                                                                                                                                                                                                                                                                                                                                National Cancer Institute / NIH
Bldg. 31 Rm.10A07 Bethesda, MD 20892
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: GPCR Consortium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CN837763.1 GI:47943418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CN837763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CN837763 1009 bp mRNA linear ES' AGENCOURT_15864212 NIH_MGC_145 Homo sapiens cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Athersys, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IMAGE:30706611 3', mRNA
                                                                                                                                                                                                                                  CDNA Library Preparation: GPCR Consortium

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC clone distribution information can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGAC 1382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HITTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCC 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGAC 58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (bases 1 to 1009)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Carnegie Ave, Cleveland, OH 44115, USA
216 431 9900
216 361 9596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  quality sequence stop: 559.
Location/Qualifiers
                                                                                                                  quality sequence stop: 464.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 scain@athersys.com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /Clone lib="Athersys RAGE Library"
/note="See 'Creation of Genome-wide Protein Expression / Libraries using Random Activation of Gene Expression', Nature Biotechnology, in press. Note that even though the cell type indicated is HT1080, since a random activation method was used, these sequence tags are not necessarily expressed in HT1080 under normal circumstances."
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:30706611"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/cell_line="HT1080"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 120; DB 4; ]; Pred. No. 7.9e-49; 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 764;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EST 02-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
```

```
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VERSION
KEYWORDS
                                                                      ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORIGIN
                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 7
BG210740/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             176 TTTAGGCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGAC 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Harrington, J.J., Sherf, B., Rundlett, S., Jackson, P.D., Perry, R., Cain, S., Leventhal, C., Thornton, M., Ramachandran, R., Mhittington, J., Lerner, L., Costanzo, D., McElligott, K., Boozer, S., Mays, R., Smith, E., Veloso, N., Klika, A., Hess, J., Cothren, K., Lo, K., Offenbacher, J., Danzig, J. and Ducar, M.

Creation of genome-wide protein expression libraries using random activation of gene expression
Nat. Biotechnol. 19 (5), 440-445 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 871)

Charle Brindlett S. Jackson, P.D., Perry, R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Scott J. Cain
Atherays, Inc.
3201 Carnegie Ave, Cleveland,
Tel: 216 431 9900
Fax: 216 361 9596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BG210740
RST30287 Athersys RAGE Library
BG210740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BG210740.1 GI:13732427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11329013
                                                                                                                                                                                                                                                                                                                                                                                                                      Smail: scain@athersys.com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCC 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4.6%;
milarity 100.0%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                        quality sequence stop: 456.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /clone lib="NIH_MGC_145"
/note="Vector: pcDNA3.1; Site_1: varies by clone; Site_2: varies by clone; ORPs were PCR-amplified and cloned into pcDNA3.1 by the GPCR Consortium. Cloning sites vary by clone and include the following: 5'-EcoRV-XmmI/XhoI-3', 5'-EcoRV-XmmI/NotI-3', EcoRV (TA cloned, non-directional). For information about which gene each clones represents, please visit our anonymous ftp site at ftp://image.llnl.gov/image/rearrayed_plates/IRBI.preSV.data Note: this is a NIH_MGC Library."
                                                                                       /clone lib="Athersys RAGE Library"
/note="See 'Creation of Genome-wide Protein Expression
Libraries using Random Activation of Gene Expression',
Nature Biotechnology, in press. Note that even though the
cell type indicated is HT1080, since a random activation
method was used, these sequence tags are not necessarily
expressed in HT1080 under normal circumstances."
                                                                                                                                                                                                                                                      /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/cell_line="HT1080"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /tissue_type="mixed"
/lab_host="DH10B"
4.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 120; DB 7; I Pred. No. 7.9e-49;
  Score 115; DB 4;
Pred. No. 2.7e-46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            871 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OH 44115,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   mRNA linear EST 21-APR-2001 sapiens cDNA, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4SD
                     Length 871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1009;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gape
```

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 8
CN831885/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                         र्
                                                                                    밁
                                                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
                                                                                                                                                         Query Match
Best Local S
Matches 97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches 115;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1328 GCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCCAGAGGGCTCTGCAGGAC 1382
                                                  1347 AACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACA 1383
                                                                                                                      1287 AGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAG 1346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        158 CCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 827)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            http://image.llnl.gov
Plate: IRBI4 row: e column: 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: cgapbs-r@mail.nih.gov
Tissue Procurement: GPCR Consortium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CN831885 827 bp n
AGENCOURT 15669850 NIH MGC 145 Homo
IMAGE:30706617 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CN831885.1 GI:47935638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CN831885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  found through the I.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CDNA Library Preparation: GPCR Consortium (LLNL) CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Agencourt Bioscience Corporation Clone distribution: MGC clone distribution information can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCAGCGTCAAAATAGGCAGAACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGAC 44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             quality sequence stop: 653.
                                                                                                                                                           Conservative
                                                                                                                                                                                                                                              /clone lib="NIH MGC 145"
/rote="Vector: pcDNA3.1; Site 1: varies by clone; Site 2:
/note="Vector: pcDNA3.1; Site 1: varies by clone into pcDNA3.1 by the GPCR Consortium. Cloning sites vary by clone and include the following: 5'-EcoRV-XmmI/Xho1-3', 5'-EcoRV-XmmI/NotI-3', EcoRV (TA cloned, non-directional). For information about which gene each clones represents, please visit our anonymous ftp site at ftp://image.lln1.gov/image/rearrayed_plates/IRBI.preSV.data Note: this is a.NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                /clone="IMAGE:30706617"
/tissue_type="mixed"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . .827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         organism="Homo sapiens"
                                                                                                                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                         0;
                                                                                                                                                                            Score 97;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                           Mismatches
                                                                                                                                                                          3.8e-37
                                                                                                                                                                                             DB 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     mRNA linear EST
sapiens cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                         Length 827
                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          02-JUN-2004
                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99
                                                                                      178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 9
CN843633/c
LOCUS
                                                                                                                    RESULT 10
CN835944/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
VERSION
KEYWORDS
               VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                               밁
                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                  ACCESSION
                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DEFINITION
SOURCE
                                                                                                         POCUS
                                                                                                                                                                                                                                                                                                                                                           Best
                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          source
                                                                                                                                                                                                                                                                                                                                                           Local
                                                    863 bp RAGENCOURT 15864324 NIH MGC 145 Homo IMAGE:30706618 3', mRNA sequence CN835944
                CN835944.1
EST.
                                                  CN835944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CN843633
                                                                                                                                                                                                                                                                                                                                                           Similarity
sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               . 835
```

```
1347 AACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACA 1383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Contact: Daniela S. Gerhard, Ph.D. Office of Cancer Genomics National Cancer Institute / NIH Bldg. 31 Rm10A07 Bethesda, MD 20892 Email: cgapbs-r@mail.nih.gov
Tissue Procurement: GPCR Consortium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 835)

NIH-WGC http://mgc.nci.nih.gov/
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
Plate: IRBI4 row: e column: 12
High quality sequence stop: 660.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CN843633 835 bp mRNA linear ES' AGENCOURT 15658848 NIH MGC 145 Homo sapiens cDNA clone IMAGE:30706619 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CN843633.1 GI:47949288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cDNA Library Preparation: GPCR Consortium (LLNL) CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Agencourt Bioscience Corporation Clone distribution: MGC clone distribution information can
                                                                                                                                                                 AGTGCCAACCCCATCATTTACTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAG 1346
AACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACA 141
                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                      /note="Vector: pcDNA3.1; Site 1: varies by clone; Site 2: varies by clone; ORFs were PCR-amplified and cloned into pcDNA3.1 by the GPCR Consortium. Cloning sites vary by clone and include the following: 5'-EcoRV-XmnI/XhoI-3', 5'-EcoRV-XmnI/NotI-3', EcoRV (TA cloned, non-directional). For information about which gene each clones represents, please visit our anonymous ftp site at ftp://image.llnl.gov/image/rearrayed_plates/IRBI.preSV.dat a Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         clone="IMAGE:30706619"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      tissue_type="mixed"
                                                                                                                                                                                                                                                                       100.0%;
                                                                                                                                                                                                                                                                                                       3.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          lib="NIH_MGC_145"
                                                                                                                                                                                                                                          Score 97; DB 7; L; Pred. No. 3.8e-37; 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                Length 835;
                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EST 02-JUN-2004
                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   þe
                                                                                                                                                                                                                                             0
```

mRNA 1 o sapiens

linear cDNA clone

```
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 11
CN840024/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                COMMENT
                                                                                                                                             REFERENCE
                                                                                                                                                                                                                       SOURCE
ORGANISM
                                                                                                                                                                                                                                                                  KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMMENT
                                                                      TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                         AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1287 AGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAG 1346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97;
                                                                                                                                                                                                                                                                       AGENCOURT 15864276 NIH MGC 145 Homo sapiens cDNA clone IMAGE:30706615 3', mRNA sequence.
CN840024
CN840024.1 GI:47945679
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                http://image.llnl.gov
Plate: IRBI4 row: e column: 11
High quality sequence stop: 719.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Contact: Daniela S. Gerhard, Ph.D. Office of Cancer Genomics National Cancer Institute / NIH Bldg. 31 Rm10A07 Bethesda, MD 20892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 (bases 1 to 863)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                      Contact: Daniela S. Gerhard, Ph.D. Office of Cancer Genomics
                                                                    NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: cgapbs-r@mail.nih.gov
Tissue Procurement: GPCR Consortium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa;
National Cancer Institute / NIH
                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 895)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     found through the I.M.A.G.B. Consortium/LLNL at:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CDNA Library Preparation: GPCR Consortium (LLNL) CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Agencourt Bioscience Corporation Clone distribution: MGC clone distribution information can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACA 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACA 1383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAG
                                                                                                                                                                                                                                           sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Homo sapiens"
/mol type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:30706618"
/tissue_type="mixed"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /lab_host="DH10B"
/clone lib="NIH MGC 145"
/clone lib="NIH MGC 145"
/clone lib="NIH MGC 145"
/clone lib="NIH MGC 145"
/note="Vector: pcDNA3.1; Site_1: varies by clone; Site_2: varies by clone; ORFs were PCR-amplified and cloned into pcDNA3.1 by the GPCR Consortium. Cloning sites vary by clone and include the following: 5'-EcoRV-XmmI/Nb01-3', S'-EcoRV-XmmI/Not1-3', EcoRV (TA cloned, non-directional).
For information about which gene each clones represents, please visit our anonymous ftp site at ftp://image.llnl.gov/image/rearrayed_plates/IRBI.preSV.dat a Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3.7%; Score 97; DB 7; I
100.0%; Pred. No. 3.8e-37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chordata; Craniata; Vertebrata; Euteleostomi; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                              EST 02-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0,
```

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CN839634/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97;
                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 924)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
                                              Email: cgapbs-r@mail.nih.gov
Tissue Procuzement: GPCR Consortium
CDNA Library Preparation: GPCR Consortium
cDNA Library Arrayed by: The I.M.A.G.B. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CN839634.1 GI:47945289
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CN839634 924 bp mRNA linear EST 02-JUN-2004
AGENCOURT 15864260 NIH MGC 145 Homo sapiens cDNA clone
IMAGE 30706614 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Plate: IRBI4 row: e column: 08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Email: cgapbs-r@mail.nih.gov
Tissue Procurement: GPCR Consortium
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CN839634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           High quality sequence stop: 449.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bldg. 31 Rm10A07 Bethesda, MD 20892
found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   n 3.7%; Score 97; DB Similarity 100.0%; Pred. No. 3.897; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cDNA Library Preparation: GPCR Consortium (LLNL) CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Agencourt Bioscience Corporation Clone distribution: MGC clone distribution information can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACA 1383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAG 1346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /clone lib="NIH MGC_145"
/rote="Vector: pcDNA3.1; Site_1: varies by clone; Site_2: varies by clone; ORFs were PCR-amplified and cloned into pcDNA3.1 by the GPCR Consortium. Cloning sites vary by clone and include the following: 5'-EcoRV-XmmI/XhoI-3', 5'-EcoRV-XmmI/NotI-3', EcoRV (TA cloned, non-directional). For information about which gene each clones represents, please visit our anonymous ftp site at ftp://image.llnl.gov/lmage/rearrayed_plates/IRBI.preSV.data Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:30706615"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    tissue_type="mixed"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             . .895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 7;
O. 3.8e-37;
O;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                     aq.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
```

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 13
CN839765/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CBYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local (
                                                                                                                                                               source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1347 AACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACA 1383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1287 AGTGCCAACCCCCATCATTTACTTCTTCGTGGGCTCCTTTTAGGCAGCGTCAAAATAGGCAG
                                                                                                                                                                                                                                                                                             Unpublished (1999)
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
Bmail: cgapbs-r@mail.nih.gov
Tissue Procurement: GPCR Consortium
cDNA Library Preparation: GPCR Consortium
cDNA Library Preparation: GPCR Consortium
CDNA Library Arrayed by: The I.M.A.G.B. Consortium
CDNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (Dases 1 to 953)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGENCOURT_15864292 NIH MGC_145 Homo IMAGE:30706616 3', mRNA sequence.
                                                                                                                                                                                                                             found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
Plate: IRBI4 row: e column: 09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CN839765.1 GI:47945420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               High quality sequence stop: 602.
Location/Qualifiers
                                                                                                                                                                                                            High quality sequence stop: 578.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACA 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone lib="NIH_MGC_145"
/rote="Vector: pcDNA3.1; Site_1: varies by clone; Site_2: varies by clone; ORFs were PCR-amplified and cloned into pcDNA3.1 by the GPCR Consortium. Cloning sites vary by clone and include the following: 5'-EccRV-XmmI/XhoI-3', 5'-EccRV-XmmI/NoII-3', EccRV (TA cloned, non-directional). For information about which gene each clones represents, please visit our anonymous ftp site at ftp://image.llnl.gov/image/rearrayed_plates/IRBI.preSV.data Note: this is a NIH_MGC Library."
                                                                  /db_xref="taxon:9606"
/clone="IMAGE:30706616"
                                                                                                                                                                                  Location/Qualifiers
                       /tissue_type="mixed"
/lab_host="DH10B"
                                                                                                               organism="Homo sapiens"
|mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /clone="IMAGE:30706614"
/tissue_type="mixed"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /mol_type="mRNA"
/db_xref="taxon:9606"
clone_lib="NIH_MGC_145"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /lab host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     organism="Homo sapiens"
                                                                                                                                                                 . 953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 97; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3.8e-37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sapiens cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 924;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EST 02-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0,
```

გ

1294 ACCCCATCATTTACTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGA 1353

0,

Mismatches

0

Indels

Gaps

0,

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 14
BG195197/c
LOCUS
                                                                                                  ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
MEDLINE
PUBMED
  Query Match
Best Local Similarity
Matches 89; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1347 AACCTGAAGCTGGTTCTCCAGAGGGCTCTGCAGGACA 1383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1287 AGTGCCAACCCCATCATTTACTTCGTTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAG 1346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 184)

Harrington,J.J., Sherf,B., Rundlett,S., Jackson,P.D., Perry,R., Cain,S., Leventhal,C., Thornton,M., Ramachandran,R., Whittington,J., Lerner,L., Costanzo,D., McElligott,K., Boozer,S., Ways,R., Smith,E., Veloso,N., Klika,A., Hess,J., Cothren,K., Lo,K., Mays,R., Smith,E., veloso,N., Klika,A., Hess,J., Cothren,K., Lo,K., Offenbacher,J., Danzig,J. and Ducar,M.

Creation of genome-wide protein expression libraries using random activation of gene expression

Nat. Biotechnol. 19 (5), 440-445 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3201 Carnegie Ave, Cleveland, OH 44115, USA
Tel: 216 431 9900
Fax: 216 361 9596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BG195197 184 bg
RST14376 Athersys RAGE Library
BG195197
BG195197.1 GI:13716884
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Email: scain@athersys.com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Athersys, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Scott J. Cain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11329013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGTGCCAACCCCATCATTTACTTCCTTGGGGCTCCTTTAGGCAGCGTCAAAATAGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                    quality sequence stop: 134.
Location/Qualifiers
3.4%;
llarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                 /Clone lib="Athersys RAGE Library"
/note="See 'Creation of Genome-wide Protein Expression
/ibraries using Random Activation of Gene Expression',
Nature Biotechnology, in press. Note that even though the
cell type indicated is HT1080, since a random activation
method was used, these sequence tags are not necessarily
expressed in HT1080 under normal circumstances."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="Vector: pcDNA3.1; Site_1: varies by clone; Site_2: varies by clone; ORFs were PCR-amplified and cloned into pcDNA3.1 by the GPCR Consortium. Cloning sites vary by clone and include the following: 5'-EcoRV-XmmI/XhoI-3', 5'-EcoRV-XmmI/NotI-3', EcoRV (TA cloned, non-directional). For information about which gene each clones represents, please visit our anonymous ftp site at ftp://image.llnl.gov/image/rearrayed_plates/IRBI.preSV.dat a Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                        /mol_type="mRNA"
/db_xref="taxon:9606"
/cell_line="HT1080"
                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens"
/mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 97; Pred. No.
                      Score 89;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     184 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens cDNA,
                         DB 4; Lo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3.8e-37;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 7;
                                             Length 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 953;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EST 21-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
```

Ś 밁 δ

밁

```
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
Search completed: October 30, 2004, 00:46:40 Job time: 7932 secs
                                                                                                                                          Ś
                                                                                                                                                                                        В
                                                                                              밁
                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 15
BG196705/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                               Query Match 3.2%; Score 85; DB 4; Length 248; Best Local Similarity 100.0%; Pred. No. 4.5e-31; Matches 85; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1354 AGCTGGTTCTCCAGAGGGCTCTGCAGGAC 1382
                                                                                                                         1323 TTTAGGCAGCGTCAAAATAGGCAGA 1347
                                                                                                                                                                                                                  1263 ATTITCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCC 1322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                145 ACCCCATCATTTACTTCCTTCGTGGGCTCCTTTAGGCAGCGTCAAAATAGGCAGAACCTGA
                                                                                              115
                                                                                                                                                                                          175 ATTTTCCTGTCCGCTCTTAACAGCAGTGCCAACCCCATCATTTACTTCTTCGTGGGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 248)
Harrington, J. J., Sherf, B., Rundlett, S., Jackson, P.D., Perry, R., Cain, S., Leventhal, C., Thornton, M., Ramachandran, R., Whittington, J., Lerner, L., Costanzo, D., McElligott, K., Boozer, S., Mays, R., Smith, E., Veloso, N., Klika, A., Hess, J., Cothren, K., To, K., Offenbacher, J., Danzig, J. and Ducar, M.
Creation of genome-wide protein expression libraries using random activation of gene expression
Nat. Biotechnol. 19 (5), 440-445 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Contact: Scott J. Cain
Athersys, Inc.
3201 Carnegie Ave, Cleveland, OH 44115,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BG196705 248 bp n
RST15931 Athersys RAGE Library Homo
BG196705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Tel: 216 431 9900
Fax: 216 361 9596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BG196705.1 GI:13718392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11329013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGCTGGTTCTCCAGAGGGCTCTGCAGGAC 57
                                                                                                TTTAGGCAGCGTCAAAATAGGCAGA 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        l: scain@athersys.com
quality sequence stop: 198.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                            /Clone lib="Athersys RAGE Library"
/note="See 'Creation of Genome-wide Protein Expression
/Libraries using Random Activation of Gene Expression',
Nature Biotechnology, in press. Note that even though the
cell type indicated is HT1080, since a random activation
method was used, these sequence tags are not necessarily
expressed in HT1080 under normal circumstances."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/cell_line="HT1080"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              mRNA linear EST 21-APR-2001 sapiens cDNA, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      USA
                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                          116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    86
                                                                                                                                                                                                                                                                                 0,
```